Learning Achievement of Children at Primary Level

A Baseline Assessment Study in the Four Districts of Haryana

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PREFACE

Baseline Assessment Study (BAS) was conducted in the 4 districts of Haryana (Hissar, Jind, Kaithal and Sirsa). This is the first phase of the Assessment of Learning Achievement to be supported through the District Primary Education Programme (DPEP). Assessment will also be conducted in the third and sixth years of the project.

The Baseline Assessment Study (BAS) was completed within the constraints of time and manpower. The study so far used survey design which yield descriptive profile and correlates. Further analysis using multilevel modelling will be carried out. The cause and effect relationship are not established. Quasi experimental studies are required to support correlational and prediction studies.

We hope that this study will provide emprical basis on critical variables which form part of the DPEP for designing desirable interventions. The generalisability of study have implications for these districts only. The generalisation for the whole state may pose problems.

We appreciate the help and support received from different sources for successful conduct of the study. The Government of Haryana, particularly Director Primary Education, Shri S.S. Kaushal, and the designated SCERT faculty in particularly Shri M.C. Chutani, District Primary Education and Block Education Officers provided admirable organisational support.

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Acronyms

BAS : Baseline Assessement Study
BEO : Block Education Officer
DIET : District Institute of Education and Training
DPEP : District Primary Education Programme
DTESE : Department of Teacher Education and Special Education
GOI : Government of India
MHRD : Ministry of Human Resource Development
MLL : Minimum Levels of Learning
NCERT : National Council of Educational Researc and Training
OBC : Other Backward Caste
SC : Scheduled Caste
ST : Scheduled Tribe

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Executive Summary

1. Introduction

DPEP purports to improve participation in and quality of primary education. To achieve this, the district plans require vital information about the status of primary education. Further the stake holders, the community and its various organisation, teachers, planners and administrators require this information for setting realistic goals and selecting and designing relevant interventions. Information regarding the status is also required for assessing the starting point against which progress could be assessed periodically during the project period.

Baseline Assessment Study (BAS) a large scale multipurpose study in tends to meet these needs.

2. Objectives

The major objectives of BAS was to assess learning achievement of students approaching the end of the primary school cycle. Class 5 students were assessed in Reading and Mathematics based on class 4 curriculum. Reading assessment was confined to word meaning and comprehension and did not include the mechanics of reading. The study also assessed a number of variables relating to students, school and home to explain differences in learning achievement. Class 2 students were assessed for simple literacy and numeracy skills to study the level of learning in the beginning of the primary school and home to explain differences in learning achievement. Drop outs were assessed for simple literacy and numeracy skills to study the level of retention of these skills. Identification of factors contributing to school effectiveness were also included.

3. Coverage

BAS was conducted in four districts of Haryana, viz., Hissar, Jind, Kaithal and Sirsa. The districts like others in the DPEP was selected on the basis of low female literacy rate.

4. Sampling

Multilevel sampling design was used in the study. 2-4 blocks comprising about one fifth blocks in each district were selected randomly. Similarly 2-3 urban areas were randomly selected from the list of urban areas identified in 1991 Census. At the second level 35-40 schools were selected. Firstly, rural and urban schools to be selected was decided in proportion to the rural and urban population in the district according to 1991 Census. In the list of schools of the sampled blocks, urban schools if any, were first excluded. The remaining schools were arranged alphabetically and the required number was selected using the table of random numbers. From the list of sampled urban areas 2-3 wards were selected randomly. The required number of schools was taken from the first ward. If this did not meet the required number of schools, schools from the second ward were taken.

Nine out of the twenty eight blocks were selected randomly in the four districts. Out of the twenty-two urban areas identified in 1991 census twelve were selected randomly. At the second level one hundred twenty schools from rural areas and twenty five from urban areas were selected randomly. In Hissar 40 schools were selected. 35 schools each were included in the sample from Sirsa, Jind and Kaithal.

At the third level all class 5 students upto 30 were selected. Where the class had more than 30 students, 30 were selected with a random start. In class 2 all students upto 20 were selected. If the class had more than 20 students, 20 were selected with random start. Drop out students were selected by asking the head teacher, class teacher and looking at school records and attendance. All were selected upto 5. In case more than 5 drop outs were identified, only 5 were selected with random start. Class 5 students were interviewed. In the case of teachers all were selected upto 5, including the head teacher. If the number was more than 5 teachers, 5 were randomly selected. A total of 2516 class 5 students, 2462 class 2 students, 329 drop outs and 548 teachers were covered. This is quite a large database.

Care was taken to ensure quality of the data collected for the study through several measures. The district had one administrator with a supervisor from the headquarter. One/two members of the DIET faculty were also associated. A team of two field investigators visited the school for three days to collect data.

5. Tools

To collect the required data a number of tools were used:

A. *For Learning Achievement*

1. Class 5 Learning Achievement Test (NCERT)
2. Class 5 Mathematics Achievement Test (NCERT)
3. Class 2 Literacy and Numeracy Test (NCERT)
4. Simple Literacy and Numeracy Test for Dropouts.

B. *For Context and Process Variable*

5. Student Present Schedule (for Class 5 pupils)
6. Drop out Student Schedule
7. Teacher Schedule
8. School Record Schedule

C. *Field Notes*

Data collection was done by 32 field investigators and 3 field supervisors, all selected from Haryana.

For each district one field assistant and a team of eight field investigators were recruited through open advertisement. The field team was provided intensive training for ten days. The training covered objectives and methodology of BAS, understanding each instrument and its use to collect data, practice in sampling, administering tests and conducting interviews. It was transacted in a participatory mode with practice in simulated as well as in the field situation. Reading individually, reading together, discussion in small groups, demonstration, role play and assignments were extensively used.

Field practice was provided exactly in the same way as it was designed for data collection. The experiences were reviewed and discussed for clarifying issues arising from the field practice. Field work was organised districtwise. All the ten teams with three supervisors started and moved to the next as the data collection was completed in a particular district. The data collection started on 10 September, 1993. These 10 teams collected data from Sirsa and Hissar districts. Six more teams were recruited and provided 10 day training on 14-23 October, 1993. Sixteen teams collected data from Jind and Kaithal districts during the period from 25 October to 15 December, 1993.

Care was taken to ensure quality of the data being collected through a three tier scrutiny procedure. At the first level, field scrutiny was done on a daily basis by the field supervisors. Rigorous office scrutiny was done at the district level by the Professional Assistants from NCERT at the second stage. A final scrutiny at the NCERT headquarters was carried out at the third level. Each and every item was checked prior to data entry. The data was then verified and edited. Programmes were developed for data verification, ensuring coding accuracy, consistency and integerity. Finally data analysis was carried out for report compilation.

Major Findings

Class 5 Student Characteristics

1. The sample of class 5 students came to 2516 comprising of 49.32% girls. However, the proportion of girls was more than boys in class 2 sample. Representation of students from SC and OBC groups was very small.
2. More older boys (12 and above) than girls were in class 5. It may be due to higher drop out rates in girls.
3. The percentage of students with pre-school experience was very low. A maximum of only 11 percent student had the opportunity to avail this facility in Sirsa.
4. Majority of the sampled pupils belonged to families where the father's main occupation was agriculture.
5. About 70-85 percent of the mothers of class 5 students were illiterate, while percentage of illiteracy in fathers ranged between 30 - 50 percent. A similar trend was discernible in respect of primary education. It was also reported by a little more than half of these students that academic help at home is provided by elder brothers and sisters. A small percentage reported help from mother or father. It seems logical because of illiteracy of parents.
6. More than half of class 5 students reported having more than 4 textbooks. Nearly one-third of students have access to reading material other than textbooks. About one-fifth students reported access to newspapers and magazines. About 70 percent students purchased textbooks and remaining got old books from elder brothers and sisters or from the government.
7. Most of the class 5 students reported that they were given dictation, homework, arithmetic problems and tests regularly. Correction of home work was also reported positively. However, opportunity for reading aloud was reported by 52.1 - 69.1 percent

students. Students in urban schools had more opportunity for reading aloud than those in rural schools. About one-tenth of students reported difficulty in understanding teachers language in the classroom.

8. Educational aspirations of pupils was quite high as more than two-third students expressed the desire to study upto secondary and higher secondary level. 12-14.6 percent students desired to study upto graduation and above. More boys aspire for higher education than girls.

9. Nearly one-third of class 5 students repeated one or the other class and about one-tenth of students repeated class more than once.

10. About one-tenth of students reported absence from school due to some work. The reason was mostly household work. The girls devoted more hours in household work than boys.

Learning Achievement (Language)

The class 5 Language Achievement Test comprised of two sections, the word meaning (WM) test consisted of 40 items (anonyms and synonyms) and reading comprehension test of 44 multiple choice items.

The mean achievement of class 5 students in language ranged from 34.58 in Sirsa to 38.99 in Kaithal out of 84 marks.

The students performed better on word meaning test than on reading comprehension test. The mean achievement on word meaning test was around 50 percent of the total score while on reading comprehension test it was 40 percent of the total score in the districts of Jind and Kaithal. In Hissar and Sirsa mean achievement on reading comprehension test did not reach even the minimum of 40 percent.

The girls scored significantly higher in Hissar and Sirsa districts in reading comprehension and word meaning.

Areawise analysis reveals that there were marginal differences in the means of word meaning test except in Jind district, where students from urban schools scored significantly higher than those in rural schools. The mean difference in reading comprehension were more marked. The students in urban schools scored significantly higher than students in rural schools in Hissar, Jind and Sirsa districts.

The mean differences on word meaning as well as comprehension test were marginal in the case of SC, OBC and 'others'. However, in Hissar students belonging to OBC scored significantly higher than 'others' on word meaning and 'others' scored significantly higher than both SC and OBC students. It implies that the achievement of SC and OBC was lower than that of 'others'. About 11-26 percent students did not score even a minimum of 40 percent on word meaning test, while 40-60 percent students did not score this minimum level on reading comprehension test. About 17-30 percent students approached mastery level in word meaning, but a low of 8-17 percent achieved this level in reading comprehension. A similar trend was discovered in the case of different categories of student. Students encountered difficulty in answering inference items and items requiring getting at central idea or writing the title.

Mathematics

The MAT had 40 multiple choice items, covering four fundamental operations. Achievement in mathematics was quite low. Mean average achievement did not reach even the minimum of 40 percent of the total score in any of the districts. The genderwise analysis showed mixed result. In Hissar district girls scored significantly higher than boys while in Kaithal reverse was the case. In other districts the differences were marginal. Students from rural areas scored significantly lower than those in urban areas in Hissar and Jind, while reverse was the case in Kaithal. Pupils belonging to OBC performed significantly better than SC and 'others' performed better than both SC and OBC in Hissar. In Kaithal 'others' performed better than SC and OBC performed better than SC in Sirsa.

About 50-70 percent pupils failed to achieve the minimum mean average score of 40 percent in mathematics. Pupils achieving mastery level was practically zero.

The students encountered problems in some areas. Salient problem areas involved multiplication involving zero as one number, finding place value of fraction and addition and subtraction in the same item in statement form.

Achievement of Class 2 Students

Literacy

The mean achievement in reading is around 6 out of 10. Girls scored significantly lower than boys in Jind. With regard to achievement areawise, the results were mixed which were in favour of urban schools in Hissar and rural in Jind. The students belonging to SC scored lower than others. The achievement in word reading was lower than letter reading. In Jind district girls scored lower than boys. Students in urban schools scored higher than in rural schools in Hissar and Sirsa, while the trend was in reverse direction in Jind. It indicates district specific variations in explaining factors.

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About one-third class 2 students could not read even a single letter. Surprisingly the percentage of students not able to read even a single word was about 10-15. It may be less due to rote memorisation of words without mastering the reading of letters. More students in rural areas except in Jind district could not read even a single letter or word. Words begining and ending with matra fall in the area of difficulty.

Numeracy

The numeracy test consisted of 14 items, out of which, 6 were for number recognition and four each for addition and subtraction.

The class 2 students scored lower on numeracy than literacy test. The mean score on number recognition was less than 4 out of 6 in all districts . It is the lowest, less than 2 in Jind. The mean score on addition and subtraction is also quite low. It is less than 2 out of 8 in Sirsa. Girls scored constantly lower on numeracy test. Overall, mean achievement of students in rural schools is lower than in urban students. The SC and OBC had lower mean achievement score than 'others'.

Nearly one-tenth of students could not do even a single item of number recognition correctly. One-fourth of students could not do even a single addition and subtraction item correctly. The percentage of such children was higher in rural areas.

The percentage of children achieving mastery level in numeracy was between 20-35. percent. The lack of mastery in basic competencies is a cause of concern since it effects adversely in acquisition of subsequent competencies. The low achievement in class 5 seems to be the result of the low level achieved in class 2.

Dropout Student Achievement (Literacy)

Simple literacy test was administered to dropout students. It consisted of 8 items involving seeking factual information from a paragraph and making infrences.

The literacy level of dropout students was quite low . The mean achievement was 3 or less out of a score of 8. The gender difference in mean achievement were marginal. The dropout students in urban areas of Jind could not answer any question correctly. More than one-third of dropouts could not answer even one question correctly. Dropout students belonging to SC performed worst.

Drop Out.Student Achievement (Numeracy)

The numeracy test consisted of 8 items involving addition, subtraction and multiplication.

The mean achievement of dropout students in numeracy was low of about 4 out of a total score of 8. The differences in mean achievement among different groups was marginal. Only in the case of Kaithal district girls scored slightly higher.

The percentage of dropout students with zero score in numeracy was less than in literacy. It may be due to more functional use of numeracy skills in daily life.

Dropout Students

A total of 329 dropout students were covered. More girls than boys dropped out . More students from rural schools dropped out than from urban schools. This should, however, be considered with a caution, because it is more difficult to trace drop out students in urban area than in villages. In the sampled dropout students more students belonging to SC dropped out in Kaithal and Sirsa while reverse was the case in Hissar and Jind.

Astonishingly 62.6 percent of the dropouts repeated one or the other class atleast once. In other districts about one-third students repeated once. In Jind 26.9 percent students repeated classes twice; 7.2 percent in Kaithal and 6.3 in Sirsa repeated classes twice. In Sirsa 12.5 percent students repeated classes thrice. The class repetition emerged as one of the most important factors for student dropout from schools.

The major reasons for the discontinuance of students were that parents did not want them to study followed by the need for household work. In Hissar 13.4 percent to 37.5 percent in Sirsa students reported 'studies too difficult'. The dropouts also reported low educational aspirations. In fact, 43.9 percent in Jind to 71.9 dropouts in Sirsa did not want to study at all.

The dropout students engaged in paid work was reported to be between 6.3 percent in Sirsa to 18.8 percent in Kaithal. Most of these were involved in agriculture labour and service in households and shops.

Teachers and Head Teachers

Teacher Characteristics

In all 548 teachers were interviewed. More than half of the teachers were females in the districts of Jind and Kaithal. However, in Hissar and Sirsa, percentage of female teachers was 29.0 and 35.7 respectively. The representation of rural and urban teachers was close to the population proportion, but representation of teachers belonging to SC and OBC were below population proportion.

More than half of the male teachers were 45 years and above in age. It is understable because females started going for the profession late. Majority of teachers had passed matriculation or higher secondary. About 5 percent teachers were pursuing studies for university degree and another 5 percent teachers were for higher academic courses. Almost all teachers were trained and 5 percent of teachers had graduate teaching degree.

Teachers Inservice Training

More than one-third teachers expressed the desire to undergo inservice training . In another study on motivation and training of primary school teachers, more than seventy percent teachers wanted to undergo inservice training. Low achievement despite inservice training indicates its ineffectiveness.

The teachers were asked to indicate their preferred choice of the content to be covered in inservice training. About 40 percent wanted National Education Policy to be covered. It was followed by multigrade teaching, teaching-learning approaches and presenting and communicating subject matter.

Facilities

About 2 percent teachers reported non availability of black board and more than half reported non availability of cupboard for storage. Nearly one-fifth of the teachers did not have table and chair.

A little over one-third teachers reported availability of teacher's guides, except in Jind, and more than half of the teachers indicated availability of dictionary. About a quarter of schools did not have maps, globes, charts and books other than textbooks. Flash cards, science and mathematics kits were available to less than half of the schools.

Teaching Pattern

Multigrade teaching has been reported by 12.1 - 22.7 percent teachers. Most of teachers teaching in multigrade teaching situation reported giving work for copying to children while the teachers teaches other groups. Supervision by older children was also reported in Jind. Around one-fifth of the teachers reported work by children on their own or play in the wait period.

The teachers reported spending maximum time in giving tuition to children, followed by providing feedback and correcting tests and homework. Holding extra class and planning for teaching came last.

Predominant use of textbook was reported. Over 90 percent teachers used textbooks to explain and ask children to read. Low reading scores do not reflect effective reading by children. Preparation of material was reported by 7 - 11 percent teacher's in language and 13-21 percent in mathematics. Anyhow, textbook is practically the only means of teaching. Teachers should receive training in the effective use of textbooks.

Most of teaching aids were provided by the school. About one-third teachers reported making of teaching aids by themselves. Students were not involved in making teaching-learningaids.

In Hissar district 4.3 percent teachers reported either not giving homework or giving sometimes. This percentage is 3.6 for Sirsa and 1.5 for Jind. Giving homework by most of the teachers is confirmed also by students. Most of the teachers reported giving 10-15 problems in mathematics for homework. In language most of them reported 1-2 pages of homework.

Supervision and Satisfaction with Job

About half of the teachers reported no classroom supervision by headteachers and 80-92 percent reported no supervision from the Block Education Officer. The teachers seem to suffer from academic isolation.

Over one-fourth of teachers reported little help from the head teachers. About two-third teachers did not find Block Education Officers very helpful. It indicates lack of conducive climate in schools for learning.

More than two-third teachers reported that they were in the present school due to compulsory transfer. Similar percentage indicated personal and family reasons as the cause. It indicates low job satisfaction and motivation.

Nearly all headteachers reported checking of diaries, preparing monthly tests, evaluating tests, observation of classroom teaching and giving model lessons. This was not borne by teachers responses since about half of the teachers reported no classroom supervision.

Moreover, on the spot checking by the baseline supervision staff showed that diaries were not being maintained by the teachers. Similarly, head teachers reporting observation of classroom for teacher evaluation is contradictory. Evaluation of teachers performance based on student performance was given the second choice by about a quarter of head teachers.

The head teachers considered student motivation to be the most important factor for school performance. It was followed by attitude and commitment of parents and attitude and commitment of teachers. The head teacher considered himself or herself to be the least important factor. This indicates a tendency to consider others responsible for low performance.

Participation and School Facilities

The percentage enrolment of girls was higher than boys in Sirsa and Jind while reverse was the case in Hissar and Kaithal. In Hissar the percentage enrolment of girls declined progressively from class 1 to 5. In Jind and Sirsa this trend was not discernible. The girls enrolment was reported nearing their population proportion. It may be due to the special drive for girls education. The reliability of the record is, however, doubtful because the percentage of girls in dropouts was much higher than boys. The percentage enrolment in rural and urban schools was according to the population portion in the districts according to 1991 census.

The average size of class 1 was over 40 which progressively declined to about 20 in Sirsa and 30 in Hissar. The range of decline in class size ranged from 25.7 percent in Hissar to 57.3 percent in Sirsa.

Implications for Intervention Strategies

The analysis has brought out several important findings which have implication for designing intervention strategies. Low learning achievement in language and mathematics features in all districts. It is the lowest in Sirsa. Considerable number of students in class were at zero level and many more could not achieve even minimum level. Emphasis should be on improving teaching of reading and mathematics in beginning grades. All children should be helped to achieve mastery level in these basic tools of learning which serve as foundation for subsequent learning and achievement.

The students in class 2 could read words better than letters. As the textbook uses 'word approach' students seem to memorise words without developing sufficient discrimination between letters and *matras*. It requires lot of additional practice with new words and their analysis into component letters and *matras*. Similarly, in mathematics the student do not seemto be learning basic concepts, particularly the concept of zero. These should form part of inservice training of teachers.

Major tool of learning-teaching in the classroom is textbook. Even most of the students reported opportunity for loud reading from the textbooks. Low reading achievement indicates ineffective use of textbooks in the classroom. Teacher guides and inservice training should focus on this area.

Majority of dropouts were girls and children belonging to SC. Girls achievement was also lower than that of boys in Mathematics. In rural areas achievement levels were lower. Intervention strategies should be addressed to these needs.

Most of the dropouts were repeaters. Even class 5 students had good number of repeaters. There were also students who repeated classes twice and thrice. This is also indicative of poor quality of teaching which is to be addressed. Majority of teachers reported receiving inservice training. It needs review and redesign to make it an effective tool of improving learning achievement.

More than half of the teachers were in the school due to compulsory transfer or personal adjustment which indicates low level of motivation and job satisfaction. Irregular attendance by teachers was comparatively low except in Sirsa. The transfer and posting policy needs review and rationalisation to reduce dissatsfaction among teachers.

Most of the parents, particularly mothers (over 80 percent) are illiterate. More siblings provide academic help to children. Making child-to-child help effective can be developed as a strategy to improve learning in schools and at home. In fact child-to-parent approach could also be used to harness support for learning environment building at home. It also implies that emphasis to ensure return from investment in DPEP in these districts should be on effective teacher development activities and decentralised supervision and support with peer coaching. Networking of primary schools laterally in a cluster and lead school vertically could be an effective strategy.

The monitoring of the numbers only should be broadened to include qualitative indicators like learning achievement, repeatition and drop outs through field studies. To measure the extent of dropouts household survey is needed since school records are not reliable.

Despite low achievement levels in all districts, district specific patterns emerge. From these findings district specific interventions could be worked out for reducing dropout and improving attendance.

CHAPTER - I

INTRODUCTION

The foundation for learning in the later school years is laid at the primary level. Educational researchers all over the world have been concerned about the achievement and its determinants at the crucial primary level. In India a very few studies address the primary stage. The two national surveys of achievement of primary school children conducted by the National Council of Educational Research and Training (NCERT) indicate low levels of learning achievement.

The Baseline Assessment Study (BAS) comprised a large scale multipurpose sample survey to assess learning achievement of Class V students in rural and urban government primary schools. The BAS also assessed a number of potential students, schools and home variables for explaining differences in learning achievement; the reading and numeracy skills, reasons for non participation in schooling; availability of teaching materials and physical facilities in schools and potential support from study at home.

The basic design of the study was a modification of the design used in the District Primary Education Programme (DPEP) Baseline exercise in Uttar Pradesh and a study on Primary Education in Tamil Nadu.

This report is the outcome of the Baseline Assessment Study which in fact, is the first phase of Assessment of Learning Achievement(ALA) Assessment and will also be conducted in the third and sixth years of this project.

The state of Haryana is characterised by regional variations in literacy rate among different districts, blocks and villages and also among different socio-economic groups. The state policy on education as envisaged in National System of Education implies that up to the age group 6-14 years, all children, irrespective of their caste, creed, location or sex, have access to elementary education of a comparable quality. There is a provision of free and compulsory education to all the children upto the age of 14 years. The National Policy on Education (1986) gives top priority to universalization of primary education.

Lately, there has been a substantial increase in the number of primary schools during the past few years. The total number of Government Primary Schools in 1991-92 was 8024. Students' enrolment at the primary stage of education exclusively in Government Primary Institutions was 16.49 (1991-92). The number of JBT teachers in Government Primary Schools and attached primary schools as on 30.9.1992 was 36,351. According to the Census (1991), the literacy rate for person in the state was 55.85 per cent (67.85% for males and 40.94% for females), but among the districts this literacy rate varies, being 55.54 per cent in district Ambala as maximum and 37.87 per cent in district Jind as minimum.

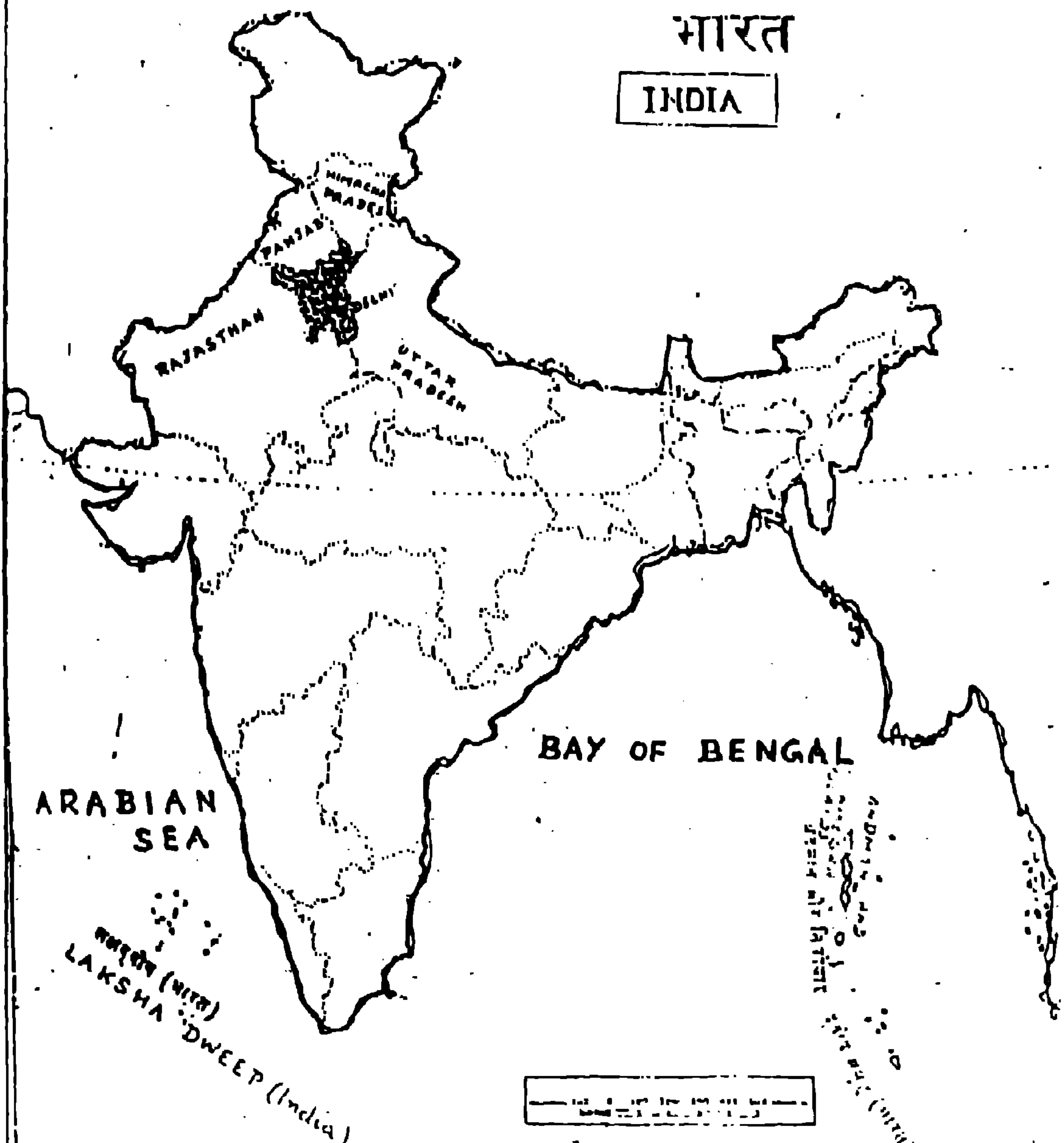

भारत
INDIA
HIMACHAL PRADESH
PANJAB
DELHI
RAJASTHAN
UTTAR PRADESH
BAY OF BENGAL
ARABIAN SEA
लक्षद्वीप (भारत)
LAKSHA DWEEP (India)

Fig. 1

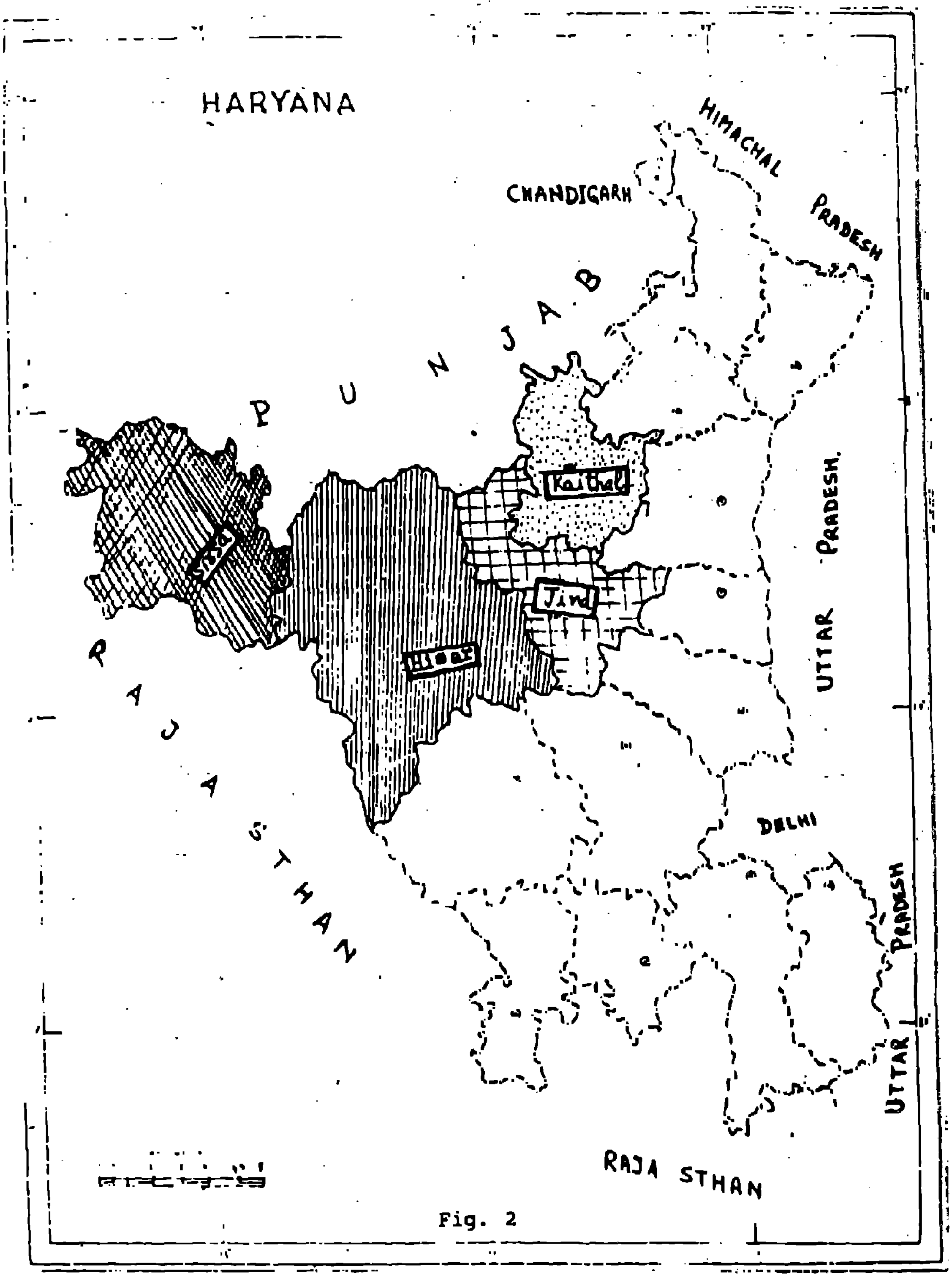

HARYANA
HIMACHAL PRADESH
CHANDIGARH
PUNJAB
Kaithal
Sirsa
Jind
Hisar
RAJASTHAN
UTTAR PRADESH
DELHI
UTTAR PRADESH
RAJA STHAN

Fig. 2

There are four districts in the state which have low literacy rate, i.e.. 39.01 per cent in district Hisar, 38.58 per cent in district Kaithal, 38.16 per cent in district Sirsa and 37.87 per cent in district Jind. The female literacy rate in the state is 40.94 per cent but the female literacy rate is 26.33 per cent in district Hisar, 22.93 per cent in district Kaithal, 28.11 per cent in district Sirsa and 24.42 per cent in district Jind. Obviously these districts are alarmingly lagging behind in the race of female literacy.

Therefore, the Baseline Assessment Study was conducted in these four districts of Haryana namely Hisar, Jind, Kaithal and Sirsa. The report, documents various aspects of the study concerning specific problems and issues of primary education. In the light of the findings, certain modalities, strategies and techniques for achieving specified educational goals and objectives are also recommended.

Organisation of the Report

This report provides details on the design, approach, methodology and outcome of the study. All this information is provided in four chapters. The *first chapter* introduces the study and its objectives and provide description of the research design and instruments used. The *second chapter* is a record of how the study was organised and field work conducted. It also describes the data collection, its scrutiny and its management. The *third chapter* focuses on the main findings of the study describing the pupils of Class V and II, the dropouts, their achievement, characteristics of the teacher and head teacher and the school. These findings are based on qualitative observations and statistical analysis of data obtained from monitoring staff and field workers. The *fourth chpater* discusses the implications for intervention strategies.

Rationale of the Study

The National Education Policy, 1986 has emphasised the need to provide free and compulsory education to all children including girls, disadvantaged groups and out of school children upto 14 years of age by the beginning of the 21st century. This study was conducted within this comprehensive framework.

A number of ambitious programmes such as Universal Elementary Education, Total Literacy Campaign, Education For All, were therefore launched during the recent period. Universal Elementary Education(UEE) has three aspects : (a) universal access and enrolment, (b) universal retention of children upto 14 years of age ; and (c) substantial improvement in quality of education to enable all children to achieve essential levels of learning. Strategic moves requiring immediate attention to achieve the stated objectives were emphasised. These include local area based planning with disaggregated targets and decentralized planning and management, incorporation of gender perspective in all aspects of planning and implementation process of UEE, improvement of school effectiveness, strengthening of school alternatives particularly to NFE System and stressing local community participation in education. There is also emphasis on process, toning up competence, training and motivation of teachers, learning competence and achievement, besides the need for improved teaching-learning materials.

The District Primary Education Programme(DPEP) incorporating the above strategic issues, was launched in 46 districts of eight educationally backward states of the country in 1993. This programme is expected to cover 110 districts by the end of Eighth Five Year Plan. Minimum Levels of Learning(MLL) Approach, which focuses on minimum quantum of learning to be acquired by practically all children including disadvantaged children, has been incorporated in this programme. MLL approach emphasises on learning of skills hence it is defined in terms of competencies which every child must achieve corresponding to the stage of development.

As the target group of such programmes are the children of school-going age group whether they are attending school or not, complete information about them and related variables is a must for the planning and implementation of programmes. To achieve this information which includes levels of attainment of competency of pupils, factors related to student, school and home, explaining differences in attainment levels, gender and categorywise attendance pattern, dropouts and repetition and reasons for non-participation in schooling, availability of teaching/physical facilities, resourcefulness of teachers and their teaching pattern, effectiveness of schools and factors accounting for it are all required. Baseline Assessment Study was organised to generate the data base to obtain this information and to satisfactorily respond to some of the research questions.

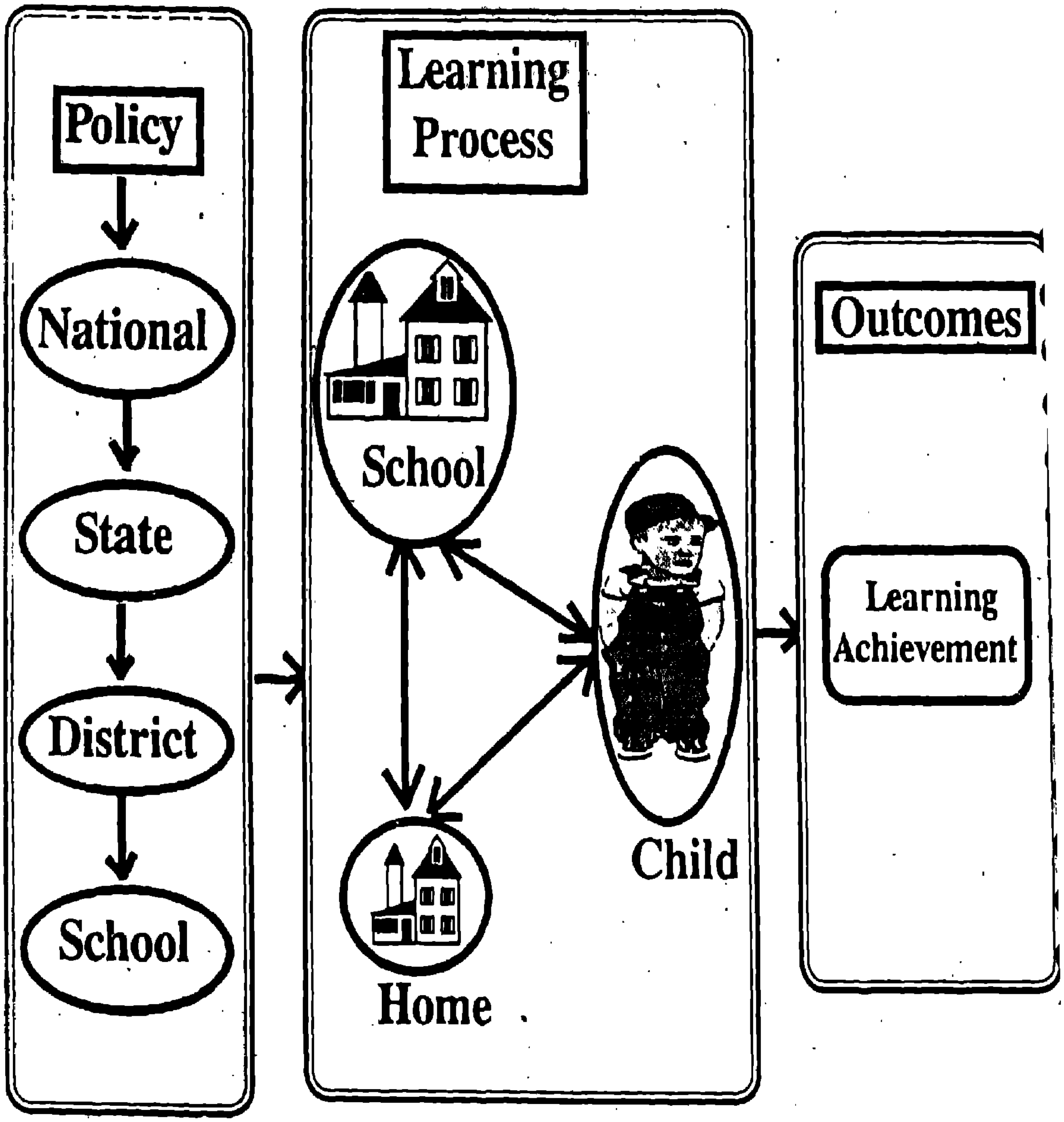
Research Questions in Focus

1. What are the levels of learning achievement of primary school children in :
    - Reading?
    - Mathematics?
2. Are there differences in achievement of :
    - Boys - Girls?
    - SC-ST-OBC-Others?
3. What child, school and home factors explain differences in learning achievement?
4. Are some schools more effective than others? What makes schools more effective?
5. Specific interventions in training

Major Objectives

The main purpose of this study was to assess the achievement level of students in language (reading comprehension and verbal ability) and mathematics, at the beginning and nearing the completion of Primary School Cycle.

Primary schools in Haryana are upto Class V. Thus literacy and numeracy skills of those students were assessed who had been adequately exposed to Class IV curriculum and



Conceptual Framework for Learning in School

Fig. 3

presently, were studying in Class V. The data was subjected to statistical analysis to examine whether gender(boys-girls), caste-categories(SC, ST, OBC & others) and area (students of rural and urban schools) account for differences, if any, in the achievement level of students.

Another major purpose of this study was to collect data on relevant student, school and home variables. These were analysed to find out specific student, school and home background factors which explain differences, if any, in learning achievement level of different categories of Class V students.

Still another purpose of this study was to estimate levels of learning of simple literacy and numeracy skills of Class I students and to examine whether there were gender, caste-category and areawise differences in the achievement of Class I students. A short MLL oral test was used to test competencies of children in Class II which should have been mastered by them by the end of Class I. It was presumed that the achievement in lower primary classes may be an indicator of school-performance at higher level. Thus this was used as an explanatory variable in the analysis of the Class V results. It would also provide valuable information on the extent of mastery of these in the lower primary classes. It was also decided to interview and test a small sample of dropouts of Class V to understand the characteristics and extent acquisition of basic skills of these students.

The main focus of BAS was to assess learning outcomes of students in schools. Nevertheless, it also provided data pertaining to enrolment, attendance, dropouts and repetition rates, school facilities, availability of educational materials in school, pupils, teachers' characteristics; teaching processes, and pupils background which would be useful for education-managers, administrators, planners and researchers. The specific objectives of the study were :

1. Estimate achievement level of class 5 students in
    (a) Mathematics
    (b) Reading comprehension
2. Investigate differences in achievement in
    (a) Students in rural and urban schools
    (b) Boys and girls
    (c) Students belonging to different disadvantaged groups
3. Estimate levels of learning, of simple literacy and numeracy skills expected at the end of class one in
    (a) Students in rural and urban areas
    (b) Boys and girls
    (c) Students belonging to different disadvantaged groups

4. Analyse student, school and home factors that explain differences in learning achievement levels of class 5 students.

5. Carry out diagnostic analysis of learning achievement in schools.

Coverage

Four districts were chosen purposively from the state of Haryana, which were to form a part of the first stage of the study. This selection was done on the basis of the backwardness, low levels of literacy, enrolment in primary schools and participation of girls in the formal school system. The districts selected were Hisar, Jind, Kaithal and Sirsa.

Population

The population under consideration were all government primary and private aided schools as also primary sections forming part of middle/higher secondary schools; where Hindi is used as the medium of instruction.

Sampling

The school was the basic unit of sampling. In order to select 45 schools,per district, a multistage random sampling procedure was adopted. For the selection of samples, each project district was treated as a unit and was divided into two domains, namely rural and urban. Sampling was done initially in two stages at teachers and students levels and when the size of target population was higher than pre-decided sample size, the third stage of sampling was also performed. The first two stages of sampling were (a) at area level(block/ urban area) and (b) at school level. Keeping in view the time, financial as well as pre-decided standard sample size, it was decided that this study should have for the first stage of sampling, approximately, one-fifth i.e. 20% blocks and urban areas from each district. More precisely the criteria for selection within blocks was as follows:

1. District having 1-10 blocks, 2 to be selected;
2. Districts having 11-20 blocks, 3 to be selected;
3. Districts having 21-30 blocks, 4 to be selected.

However, if a district had a tribal block it was to be included in the sample. The criteria for selection of urban areas were :

1. Districts having 1-10 areas, 2 to be selected;
2. Districts having 11-20 areas, 3 to be selected.

The districtwise number of total and selected blocks/towns is given in Table 1.1.

Table 1.1: Districtwise Distribution of Sampling Units

District	Hissar		Jind		Kaithal		Sirsa		Total	
	Block	Urban Areas	Block	Urban Areas	Block	Urban Areas	Block	Urban Areas	Block	Urban Areas
Blocks/Urban Areas	11	9	6	5	4	4	6	4	28	22
Sampled Blocks/Urban Areas	3	3	3	3	2	3	2	3	9	12
Total Number of Schools in the District	848		444		337		464		2093	
Sampled Schools	32	8	29	6	30	5	29	6	120	25
% Sampled Schools to the Number of Schools in the District	05.00		07.40		10.30		07.50		06.90	
% Urban Population (1991 Census)	21.10		17.20		14.70		21.20			

The second stage of sampling was performed to select schools from within the already selected blocks/urban areas. Approximately three per cent of the total schools, ranging between 35 to 45 schools in the four districts constituted the sample schools. The selection of particular number of schools from blocks and urban areas of each district were decided in proportion of rural urban population of the districts, given in the 1991 census. The following steps were taken to select the rural schools in a blocks :

(i) Exclude urban schools if any from the list.
(ii) Arrange the schools in alphabetic order.
(iii) Select the required number of schools using random number of tables.
(iv) A replacement list of 10 schools in case of need for substitution during data collection.

For selection of schools from an urban area the steps followed were :

i. Urban areas were selected randomly.

ii. A list of wards was procured from the District Education Officer(DEO) from each district.

iii. Within each ward a list of government primary schools and private aided schools was procured.

vi. A ward was selected randomly and all schools within the ward were taken in the sample.

v. This method was adopted till the required number of schools had been selected.

Thus 32, 29, 30 and 29 rural schools and 8, 6, 5 and 6 urban schools were selected from Hisar, Jind, Kaithal and Sirsa respectively. The percentage of sampled schools to the number of schools in the district ranged from 5 per cent in Hisar to 10.3 in Kaithal. This percentage was almost the same in Jind(7.4) and Sirsa(7.5). See Table 1 for details of districtwise distribution of sampling units.

At the third stage students from Class V and II, teacher and dropouts were to be selected. Class size was decided to be used as a criterion for considering stratification of sample schools. This was based on the work of New Concept Consultancy Services on Baseline Assessment Study of Uttar Pradesh(1992-93). The sample schools were bifurcated in low enrolment and high enrolment categories taking enrolment of 30 pupils in Class V of the school as baseline. In case of the former all the students of Class V, and only 30 students of Class V of later school category, who were present on the day of survey were included in the sample. For preparation of sampling framework and selection of sample students, the procedure adopted for selection of schools(second stage of sampling) was followed. This procedure was again repeated for selecting the sample students of Class II. In this case, an enrolment of 20 pupils in Class II of the schools was taken as baseline for stratifying 'low' and 'high' enrolment schools. All the Class II students of later school category were included in the sample for administration of tests.

It may be noticed that at this juncture that for selection of sample students of Class V, theoretically we were required to prepare four sampling frames. Operationally, this was not so, as we were required to select all the students of Class V of rural and urban low enrolment sample schools. This in fact had simplified the desk work of our investigators. However, following the above procedure a total of 2516 students of Class V constituting 2046 from rural and 470 from urban and 2462 students of Class II, constituting 2044 from rural and 410 from urban sample schools, were selected as sample for this study (refer to Table 1.2).

SAMPLING

1. Multilevel
2. Random

Blocks

about 20% blocks
2 - 4
Additional tribal block

Urban Areas

2-3 from urban areas (Census, 1991)

Schools

Rural - Urban (Proportionate to population in Census 1991)

Blocks : Excluding urban schools
Arranged alphabetically
Random selection of the required number.

Urban Areas : List of wards
Draw randomly
All schools of wards

Students:

Class 4/5 : All students upto 30
If more than 30, select with random start

Class 2 : All students upto 20
If more than 20, select with random start

'Drop-outs : Identification through head teacher and students
All upto 5. Random start, if more than 5

Teachers :

All upto 5 including head. Random selection if more than 5

SAMPLING FRAME

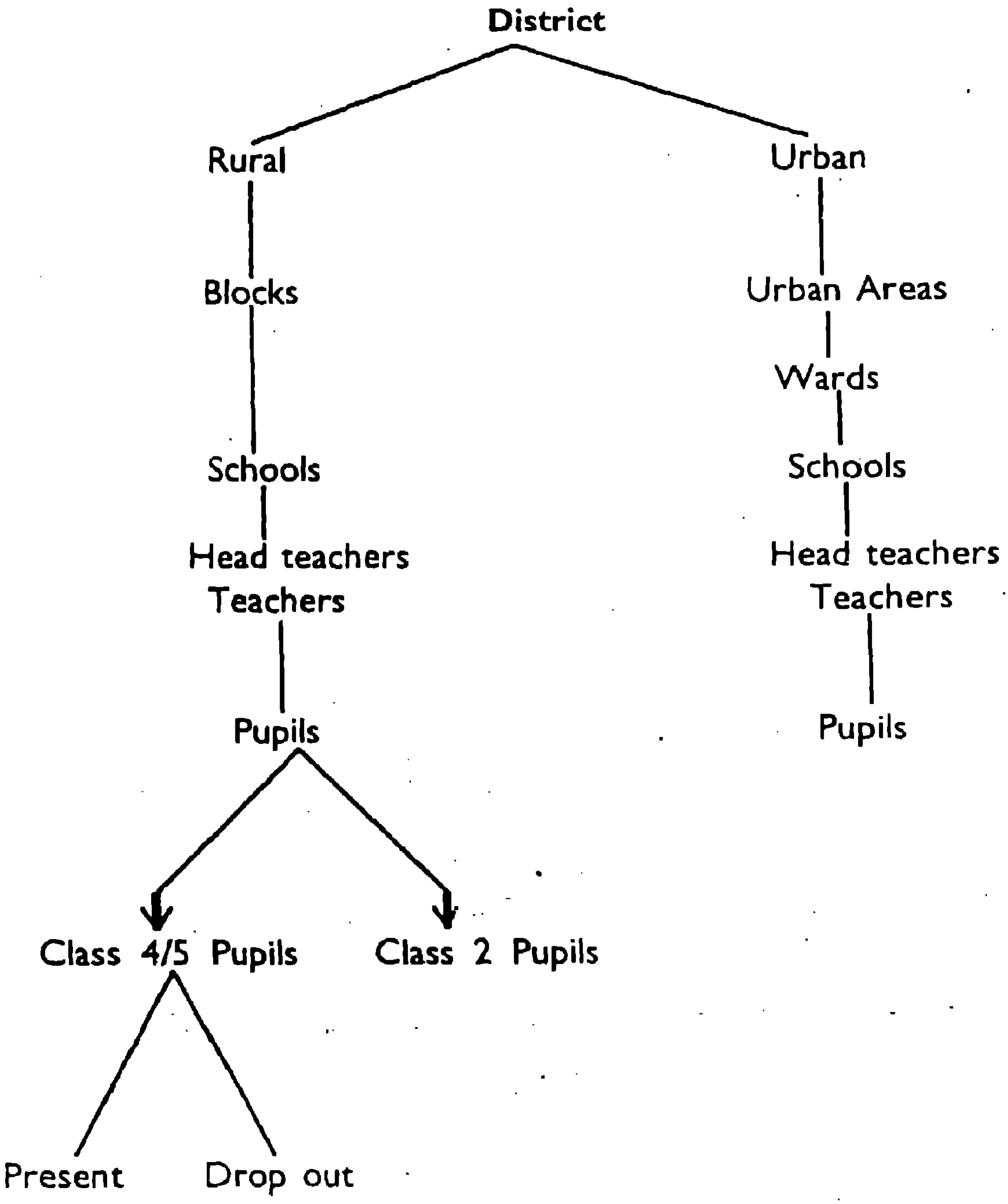


Fig. 4

Table 1.2: Locationwise Distribution of Total Sample (Students and Teachers)

District	Class 5		Class 2		Drop Out		Teachers		No. of Schools	
	R	U	R	U	R	U	R	U	R	U
HISAR	473	120	488	133	91	28	103	35	32	8
JIND	593	124	597	99	63	3	173	33	29	6
KAIT-HAL	534	117	466	86	96	16	73	19	30	5
SIRSA	446	109	493	100	22	10	87	25	29	6
	204	470	204	418	272	57	436	112	120	25

Other two target areas from which samples were taken were dropouts or those who absented from the schools and school teachers. In each school, a small sample of five students who were enrolled in Class V but remained absent on the day of survey were randomly selected. These students were identified through the head teachers, school record and Class V students. If required, interview technique was used to identify such students. Similarly, in each selected school, a small sample of five teachers including Headmaster, was interviewed. Where the number exceeded five the head teacher and Class V teachers were initially selected and thereafter the random number table was used for selection of remaining three teachers. In this way a total of 548 teachers including head teachers constituting 346 from rural and 112 from urban sample schools, were selected. Districtwise details of sampled dropouts and teachers is given in table 1.2. Overall, the total sample size for the four districts consisted of 145 schools, 2516 Class V students (1275 boys and 1241 girls), 548 teachers of whom 313 were females, 329 dropouts/absent students and 2462 (1060 boys and 1402 girls) Class II students (Table 1.2(a).

Table 1.2a: Genderwise Distribution of Total Sample (Students and Teachers)

District	Class 5		Class 2		Drop Out		Teachers	
	B	G	B	G	B	G	M	F
HISAR	352	241	278	343	52	67	40	98
JIND	330	387	314	382	20	46	108	98
KAIT-HAL	365	286	254	298	40	72	47	45
SIRSA	228	327	214	379	13	19	40	72
G.Total	1275	124	106	140	125	204	235	313

Assessment of Learning

Three largest groups, namely students of Class V, dropouts and students of Class II were subjected to an assessment of their learning achievement in this study. Achievement tests developed and standardised by NCERT for use in the countryside survey on Primary School Attainment conducted in March, 1991 and later adopted by the New Concept Consultancy Services for Baseline Assessment Study of UP were also used in this study. The syllabus of the class for which these tests were developed formed the base for these tests. For example, Mathematics Achievement Test developed for Class V was based on syllabus of Class IV students. Hence, it would give an accurate picture regarding the skills of these students only if administered on them by the end of the academic year or on Class V students in the beginning of the next academic year. The later alternative was given a high basis while administering the tests.

Two precautions were taken before finally adopting the NCERT achievement measures. Firstly, in the NCERT test English numericals were used. These were changed into Hindi numericals because tests were to be administered on children who were taught in Hindi. Secondly, it was found that students were not taught the multiple choice format hence investigators were trained to use the example repeatedly to enable the pupils to understand how to tackle test items having such multiple choice format. The following tests were used for the assessment of learning achievement of Class V and Class II students.

1. NCERT Class V Language Achievement Test (LAT)

It was a modified version of NCERT's test, based on Class IV syllabus. A total of 84 items constitute this LAT test which were divided into two sections. The first section comprised of 40 items aiming to measure test word meaning and word understanding of the students. Similarly, the second section had 44 items. These items being presented in multiple choice format were based on passages. This section was to test the reading comprehension and of course also reasoning of the students. Caution was taken to arrange items gradually in increasing order of difficulty.

2. NCERT Mathematics Achievement Test (MAT)

A modified version on the basis of Class IV syllabus of NCERT, the Mathematics Achievement Test consists of a total of 40 items. These items were structured in multiple choice format and were intended to test pupils' understanding of four digit numbers, four fundamental operations (addition, subtraction, multiplication and division), decimal and fraction numbers and concept of measures. Items of this test were also arranged in measuring order of difficulty level. Scores obtained by students showed the level of pupils' achievement on this test.

3. NCERT Class II Achievement

For Class II students a simple literacy and numeracy test based on competencies expected to be acquired by the end of Class I was used. This test was developed by the NCERT as a part of Primary Education Curriculum Renewal Project. The literacy test consisted of reading 10 letters of the Hindi language alphabets and 10 words. The numeracy test comprised of recognising smaller and larger numbers in a pair of one and/or two digit numbers, and addition/subtraction related problems with one or two digit numbers.

4. Literacy and Numeracy Test for Dropouts

A far shorter and simplified test was developed for dropouts as against the test administered on Class V students. The section developed for assessing language achievement of dropouts required children to read 5 simple sentences of five to ten words each and answer eight questions of simple comprehension. Similarly, the section of numeracy skills consisted of eight questions on the four fundamental operations, involving one or two digits. The test was adopted from a test used in another World Bank Research Project. In fact, it was assumed that achievement level of dropouts tested away from school settings may not be high. Hence, the difficulty level of literacy and numeracy related items of this test was no way higher than the subject matter of Class II textbooks.

B. Schedule for Content Process Variables

The schedules used in Uttar Pradesh, Baseline Survey were reviewed in the light of the experiences and modified for the present study. Information was collected from sample schools, teachers, and pupils of Class V and II and dropouts. The following schedules were used :

1. Student Present Schedule (SP)

This schedule was administered only on those students of Class V who were present and had been administered LAT and MAT tests previously. A total of 43 items constituted this schedule. It included items relating to general details about the respondents and number of background variables relating to family profession and its economic status, pre-schooling, school related activities, attendance, availability of learning materials, transactions about teachers and teaching, school related activities at home, and health and nutrition of students. These items produced in 7 sub-sections were intended to gather factual information about background variables and their perceptions about their schools operations.

2. Students Dropout Schedule (SD)

This was a modified version of above schedule. It was used for interviewing those students who were not present in schools(dropouts). A total of 19 items pertaining to background variables were incorporated in the schedule. It also covered items seeking from dropouts the reason for leaving the school and the work in which they were engaged at the time of their schooling. Achievement related items were also incorporated in this schedule.

3. Teachers Schedule (TS)

This schedule was used for interviewing teachers as well as headmasters of the sample schools. Ten subsections comprising of 36 items exploring information about number of variables were included in this schedule. In case of headmasters' four more subsections having 30 items were incorporated. It provided information relating to the teachers' family background, their characteristics, experience and training etc. Information regarding responsibilities of headmasters, teaching systems, students' expenditure on education and community participation were also gauged through this schedule.

4. School Record Schedule (SR)

A total of 32 items under 10 sub-sections constituted this schedule. It was filled up by all the sampled schools and provided information relating to physical facilities, teaching materials and aids, enrolment, attendance dropouts, teachers and their training, multigrade teaching, school expenditures and other school characteristics.

5. Field Notes

For each school, a separate set of field notes was filled by the investigating teams. It covered the procedure used by investigators for selecting Class V and II students, dropouts and teachers. Detailed listing of students and teachers names, random start, column of random number based for sampling were entered. This facilitated scrutiny of the methods followed for selection of students/teachers. Field notes also contained researchers' observations and qualitative information to be used in explaining the results and providing supplementary information.

CHAPTER II

ORGANISATION AND CONDUCT OF FIELD WORK

This chapter provides the reader information about how the project design was operationalised. It discusses the selection of training staff, their training, field deployment plan, physical collection of data from the field situation, data scrutiny and management and statistical analysis.

Selection of Training Staff

The field staff consisted of a team, selected at the headquarter from the districts at the state level. An interview was held in the Department of Teacher Education and Special Education, NCERT to select professional assistants. Keeping the nature of work in mind persons with a degree in Education and experience of working in the field, alongwith a good knowledge of Hindi were selected. Their role was primarily to assist the state coordinator in carrying out field work. Similarly field investigators were selected from the districts and a team of 8 field investigators were recruited through an open advertisement. The qualification required for the field assistant who acted as supervisor at the district level was a master's degree, preferably with a degree in teaching. The field investigators were graduates, preferably with a teaching degree. A total number of 32 field investigators and 3 field supervisors were recruited from the districts of Hissar, Kaithal, Jind and Sirsa. This selection was a temporary appointment.

Training of Project Team

At the first level the state-incharges who were members of the faculty of Department of Teacher Education and Special Education, NCERT and were to work as master trainers for the field investigators at the state level and professional assistants (at the headquarter) were trained. Staff of the New Concept Consultancy Service with the experience of Baseline Assessment Survey in U.P. provided this training. This Masters Level Training Programme was of ten days duration.

A Training Manual (Vol.2) developed already was further refined and used during the training. The training emphasised field oriented, participatory and a practical method. Role play and assignment technique was extensively used. The prime objective was to acquaint participants with skills and knowledge so that they may work effectively as master trainers. The focus was to clarify the need for the study, understand its objectives, provide a thorough understanding of the instruments, their use in the field and cautions to be taken to ensure cent-per cent accuracy of collected information.

The training was followed by training programmes organised for field staff in two batches. The first batch was provided ten days training from 22 September to 1 October, 1993. The second batch consisting six more teams recruited later were provided a similar training from 25 October to 15 December, 1993.

Theoretical and practical inputs were delivered in simulated class sessions as well as in field situations. The methodology involved the extensive uses of reading individually and together, small group discussions, demonstration, role play and home assignments. There was an emphasis on learning by interaction. At the end of each day, the learning was assessed and thoroughly reviewed by the trainers. Planning for the next day was done on the basis of each days evaluation. A detailed description of the sessions is provided in Volume 2.

The training content covered the following areas :

- Objectives and scope of the study.
- Research design, instruments and techniques to be adopted.
- Conducting interviews and test administration.
- Field work details and working out a deployment plan.
- Scrutiny of data.
- Administrative procedures.
- Reporting requirements.

The training involved using the field handbook which had been translated into Hindi. The trainees read all the sections aloud, recapitulating what they had learnt, relating theory to tasks in the field.

The trainees were provided an opportunity to put all the theoretical inputs into actual field practice, as three days out of the ten were specifically allocated for practical work within schools. Field practice was conducted in schools in Haryana so as to expose the field team members to real life situations of what they were expected to do during the actual data collection later on. These field experiences were reviewed and discussed for clarifying doubts arising in actual field situations. An emphasis was also laid to developing a healthy team spirit and a strong feeling of cooperation.

Field Deployment Plan

The field force comprised 16 teams of 2 members each. These teams were lead by three supervisors. As per the deployment plan, field work was organised districtwise. It was decided that all teams would complete data collection of one district, move on to the next and so on. The first district to be taken up was Sirsa, followed by Hisar, Jind and Kaithal. Data collection started as scheduled on 25th October, 1993 and was completed on 15th December, 1993.

The entire survey work progressed as per schedule despite field problems.

Test Administration

Collection of good quality of data was the aim of the entire exercise. For this a rigorous drill was given for proper test administration in the schools. Field investigators and district supervisors were instructed to monitor this by ensuring that:-

- the selection of students from Class V and II was done according to laid down procedure and recorded in the field notes.
- the selection of the sample was not influenced by the teacher.
- no teacher was present while the test was being administered.
- enough time was provided for explaining the example items in the tests.
- Care was taken to see that no exchanges or copying takes place. Investigators were asked to seat the children properly and move around the class. No time limit was specified. However, each test was to approximately take one to one and a half hours. Administration of tests took more time in some cases while less than expected in others.

Data Scrutiny and Management

In order to ensure good quality of data its scrutiny was done at three levels:

- in the field itself by the field investigators and supervisors
- at the district level by the professional assistants from the NCERT
- at the NCERT headquarters by a scrutiny team.

The work at all three levels was monitored by the state coordinator, through school visits and examining filled schedules at the base camps. Particular care was taken in the first cycle. The review of schedules revealed that investigators needed constant attention and supervision. Feedback was provided on the daily work done by team members. Professional Assistants from NCERT supervised the work done by field supervisors/investigators and provided daily feedback.

First level scrutiny was done by field supervisors at the end of the days work done by their team members. Mistakes, if any, in sampling, omissions, incorrect or incomplete information were detected and rectified the very next day, by asking the investigators to revisit the schools. The supervisors also went along to monitor that this was done properly. It was hoped that most mistakes would be eliminated at the field stage and that missing data would be reduced to a minimum. Surprise visits were made. Mistakes were rectified without making anybody feel bad.

At the second level, scrutiny was carried out at the district level under the supervision of the professional assistants from the NCERT. Supervisors exchanged schedules and tests to crosscheck work done by other teams. The third level scrutiny was done at the NCERT Headquarters before sending it for entry and analysis. The NCERT office scrutiny team did the scrutiny based on a detailed scrutiny manual (vol.2). In this way quality and completeness of data was maintained.

The main points followed were:

- checking the number of schedules and test booklets against the challenge sheet;
- checking the status codes of the schedules;
- checking on method of random selection of students and teachers, where applicable;
- checking on whether the test worksheets and the student schedules matched;
- cross checking all codes entered on response sheets with the written responses noted on the left hand side of the response sheets;
- checking validity of codes, code range, alpha and numeric codes, inter-dependency of variables, routing, etc.
- checking of totals, accuracy of conversions(example; land holding, area of schools), checking of reference periods.

DATA MANAGEMENT, ENTRY AND VERIFICATION

Data Management

Very careful data management procedures were devised to ensure the integrity and high quality of the data.

The data in the schedules and tests were transferred to magnetic media as soon as the office scrutiny was done. Standard Software used internationally was made use of for data entry. Special programmes were written for key verification, rage-checks and validation.

Each pupil, teacher and school was identified by the respondent code and unique school identification code which indicated the district, block and school number. Thus, the data file structure maintained the data disaggregate at the pupil level, while enabling aggregation to higher levels for further analysis, and field supervisors/assistants did scrutiny work under the supervision of state-incharge/coordinator. Correctness of codes, consistency of data, routing etc. of each and every item of the schedule were scrutinised.

Data Entry

As soon as scrutiny was over and discrepancies were corrected, schedules and tests were ready for data-entry and processing. SPSS Data Entry Programme was used to transfer primary (raw) data on magnetic tapes. Information on each schedule was transferred on pre-scheduled data files.

As there were a total of seven schedules and tests, total seven data files were generated. Pupils, teachers and schools were identified by separate codes. Similarly, separate codes were used to identify schools with respect to district and block it belonged to. Thus, the data file structure maintained the data disaggregated at public level and at the same time, enabling one to aggregate it on higher level for further analysis.

Data Verification

Various measures were taken to validate transfer of data before going for final analysis.

Double Entry

One such measure was double entry. All the data was entered twice in the computer and, errors on the second entry caught by Double Entry Programme enabled to check and validate trueness of the entries.

(a) *Batch Checks:* The first set of checks received through double entry was produced in form of Batch Report. This report is for batch of records comprising all the schedule types. It checks IDs, matches schedules to all schools, tests to students etc. Further, it cross-checks the report with the control totals. Deviations if any reported in the process were immediately rectified.

(b) *Range and Routing Checks:* By way of preparing the field width and the valid range that was indicated against each variable in the schedules and running a programme which has incorporated the above, ranges and routings(which supersedes former) checks were worked out. The schedules and field notes were then, referred and corrections in raw-data file was incorporated. This procedure was repeated until no further errors were found.

(c) *Consistency Check:* A list of Intra-schedule and inter-schedule consistencies was drawn up. This included a checking devised to cross-check collected data to established its quality. A programme was then run and inconsistencies found in the process were reconciled by rechecking the schedules, the field notes and/or confirming from the investigator. Correction was made accordingly in the original data file.

Statistical Analysis Plan

In order to meet multiple objectives of the study, certain statistical methods were used. These methods were selected on the basis of the requirements of the problem in hand and theoretical compatibility of a statistical method in the form of its implicit assumptions. Before putting the data on statistical analysis, level of analysis in accordance to the study-objectives was decided. Most of the objectives (4 out of 5) of this study related to comparison across sub-groups, decided on the basis of bifurcating variables such as sex, category, area etc. Data was collected districtwise and the district was taken as a unit of analysis.

Two statistical methods were used for comparative analysis. One, percentage calculation were done which produced districtwise a broad picture of variable under study. Two, a set of t-test (Critical Ratio Tests) to compare districtwise mean scores by using sample means and SD's. Critical Ratio test assumes variance across population as the same. Hence, with help of sample SDs, standard errors were computed and 't' as ratio of mean-difference and standard error was worked out for each variable under comparison.

CHAPTER-III

MAJOR FINDINGS

The major findings summarised in this chapter have been organised as under various sections:

Section - I	*Class V students characteristics.*
Section -II	*Learning achievements of Class V students in language and mathematics.*
Section -III	*Class II students characteristics and their learning achievement in language and mathematics.*
Section -IV	*Characteristics and learning achievement of dropouts.*
Section - V	*Teacher characteristics and teaching learning process.*
Section -VI	*School management and facilities.*

SECTION - I

Sample Class V Students Characteristics

This section shows distribution of sample Class V students according to gender, caste and location. The other main features of this section includes pupils background and socio-economic and cultural factors influencing the education of the other target groups.

Genderwise Distribution

The Class V students who were administered Language Achievement Tests (LAT) and Mathematics Achievement Test (MAT) came to 2516. The distribution of sample of Class V students genderwise, areawise and castewise is described in Tables 3.1.1, 3.1.2 and 3.1.3, respectively.

Table 3.1.1: Genderwise Distribution of Class-5 Students

District	Boys	Girls	Total(N)
Hissar	59.4	40.6	593
Jind	46.0	54.0	717
Kaithal	51.7	48.3	315
Sirsa	41.1	58.9	555

In the Table 3.1.1 it is evident that a variation in the distribution of boys and girls exist. In the districts of Hissar and Kaithal the boys outnumber girls in the sample, whereas in the districts of Sirsa and Jind the sample was found to be in favour of girls.

Areawise Distribution

The sample was drawn from both rural and urban schools. The areawise distribution of Class V sample students indicates a pronounced rural representation. In all the districts there were fewer urban students in comparison to their counterparts. However, it must be kept in mind that more rural schools constitute the random sample (Table 3.1.2).

Table 3.1.2: Locationwise Distribution of Class-5 Students

District	Rural	Urban
Hissar	79.8	20.2
Jind	82.7	17.3
Kaithal	82.0	18.0
Sirsa	80.4	19.6

Agewise Distribution of Class 5 Students

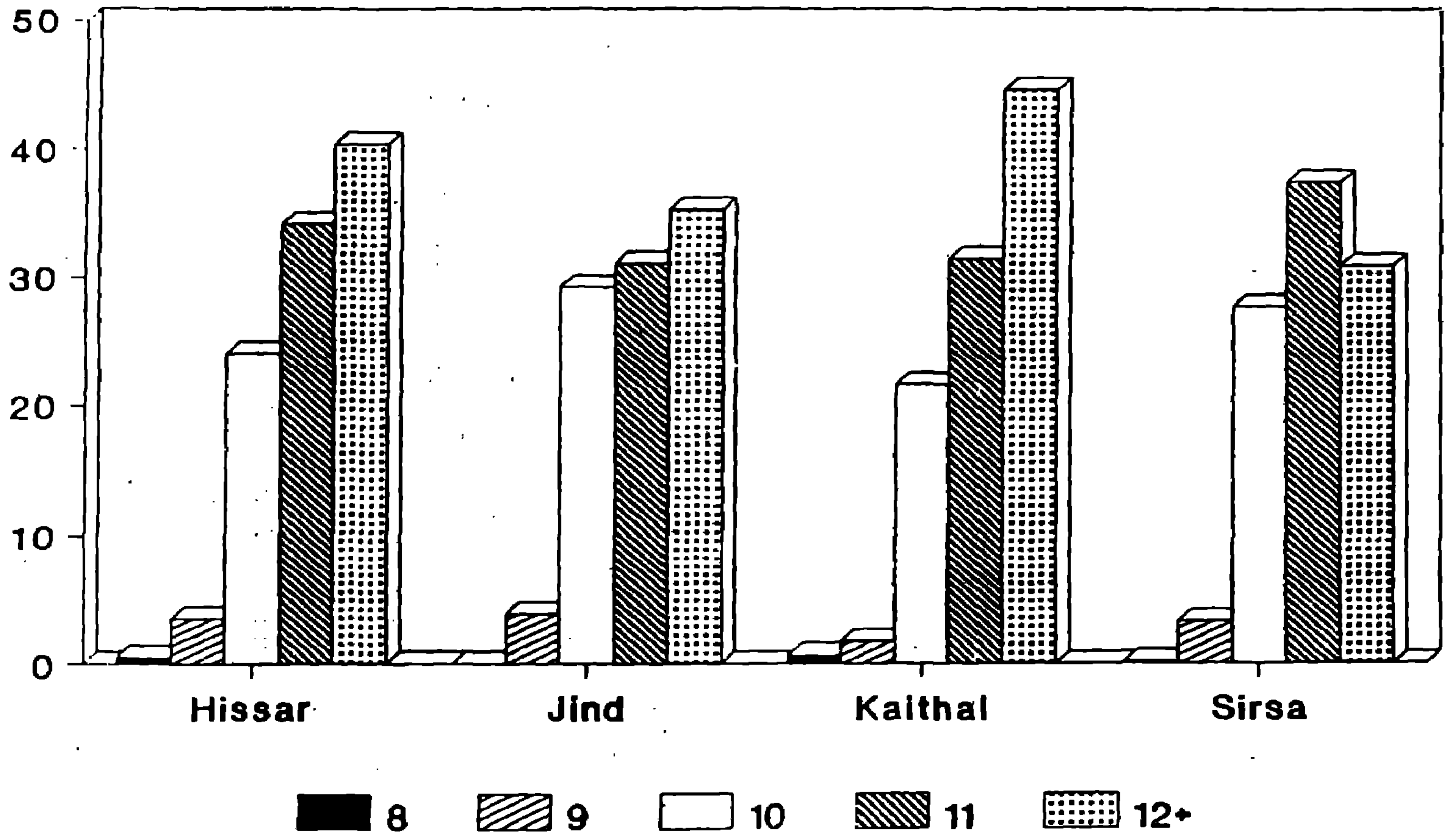


Fig. 5

Table 3.1.3: Castewise distribution of Class-5 Students

District	SC	ST	OBC	Others
Hissar	20.60	03.20	21.20	54.90
Jind	14.80	01.70	16.00	67.50
Kaithal	20.90	04.00	22.40	52.70
Sirsa	31.90	01.40	24.90	41.80

In Table 3.1.3 above the castewise distribution of Class V sample students shows more than 50 per cent of the sample reporting belonging to the 'others' class. However, in the district of Sirsa less than 50 per cent students reported the same. The representation of disadvantaged groups (SC/ST) is found highest in the district of Sirsa. Another feature appearing is that in all the districts the pupils belonging to schedule tribes is far below than the other castes. In all the four districts the common pattern emerging in the sample is that the percentage of OBC pupils is almost the same except in Jind.

The detailed analysis of Class V pupils along gender and caste lines shows that among SC/ST/OBC the boys outnumbered girls in all the districts. While in the 'other' category, there were more girls in the sample than boys in all the districts.

Table 3.1.3(a): Percentage Distribution of Sample Class V Pupils by Caste and Gender

District	SC		ST		OBC		Others	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Hissar	20.50	20.70	04.30	01.70	23.90	17.40	51.40	59.30
Jind	16.40	13.40	01.20	02.10	18.80	13.70	63.60	70.80
Kaithal	23.00	18.20	06.00	01.40	25.20	18.90	45.80	61.50
Sirsa	42.10	24.80	01.80	01.20	22.40	26.60	33.80	47.40

Overall percentage of Class V students in the age group 12 years and above ranged from 31.0 in Sirsa to 44.6 in Kaithal(Table 3.1.4). The overage may be due to late enrolment and repetition. More older boys (12 and above) than girls were in Class V, except in Sirsa. It may be due to higher dropout rates in girls.

Table 3.1.4: Agewise Distribution of Class V students

Districts	Age (Years)	Boys	Girls	Total
HISSAR	8	00.6	00.4	00.5
	9	02.8	04.6	3.5
	10	23.6	24.9	24.1
	11	29.8	33.6	34.1
	12 and above	43.3	36.5	40.4
JIND	8	0.0	0.0	0.0
	9	03.0	04.4	3.8
	10	31.2	27.6	29.3
	11	26.1	35.4	31.1
	12 and above	39.7	32.6	35.2
KAITHAL	8	00.6	00.7	00.7
	9	01.9	01.4	01.7
	10	16.2	28.7	21.7
	11	29.3	34.3	31.5
	12 and above	52.0	34.9	44.7
SIRSA	8	0.0	00.3	00.2
	9	01.8	04.3	03.2
	10	23.7	30.9	27.9
	11	41.2	34.9	37.5
	12 and above	33.4	29.6	31.0

Percentage of Class 5 Students Having Undergone Preschool Education

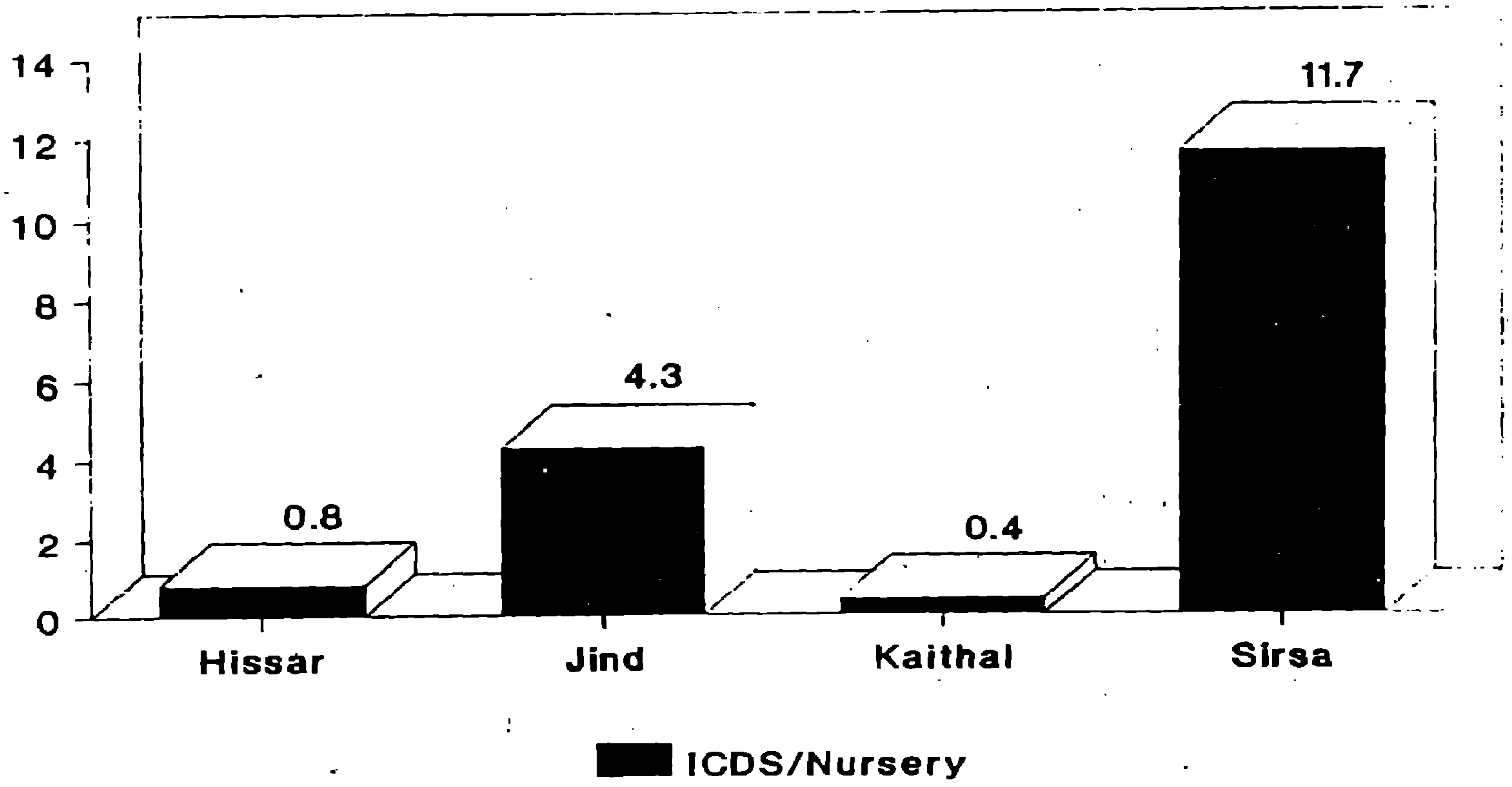


Fig. 6

PRESCHOOL EXPERIENCE

Preschool experience is supposed to set the stage for future education. However, the percentage of students with preschool experience was found to be very low. The maximum percentage of children having undergone preschool education is only 11.7 in Sirsa.

Table 3.1.5: Percentage of Class V students Having Undergone Pre-school Education

District	Category of School	
Hissar	ICDS/Nursery	0.8
Jind	ICDS/Nursery	4.3
Kaithal	ICDS/Nursery	0.4
Sirsa	ICDS/Nursery	11.7

The Balwadi system of education reflects further on the pre-school education scenario. It is not very popular in the sampled districts in Haryana. In the districts of Kaithal it is all together absent. Only a marginal percentage of children attend the Balwadi and Kindergarten (K.G.) classes.

The gender bias starts early in life. Table 3.1.6 below shows that more boys attended the Balwadi as compared to girls in the district of Sirsa. The percentage of SC is higher as compared to the OBC and others in Sirsa. The impact of non-formal education system is not very evident in the sampled districts. The non-formal system of education is altogether absent in Jind and Sirsa and only a marginal representation is seen in Hissar and Kaithal.

Table 3.1.6: Percentage of Class V Students according to Gender and Caste having Prior Schooling (Balwadi)

District	Boys	Girls	SC	OBC	Others
Hissar	00.30	00.00	00.30	00.00	00.0
Jind	01.80	00.50	00.90	00.90	01.20
Kaithal	00.00	00.00	00.00	00.00	00.00
Sirsa	06.80	02.80	07.90	01.40	02.60

Distribution of Class 5 Students by Parents Illiteracy

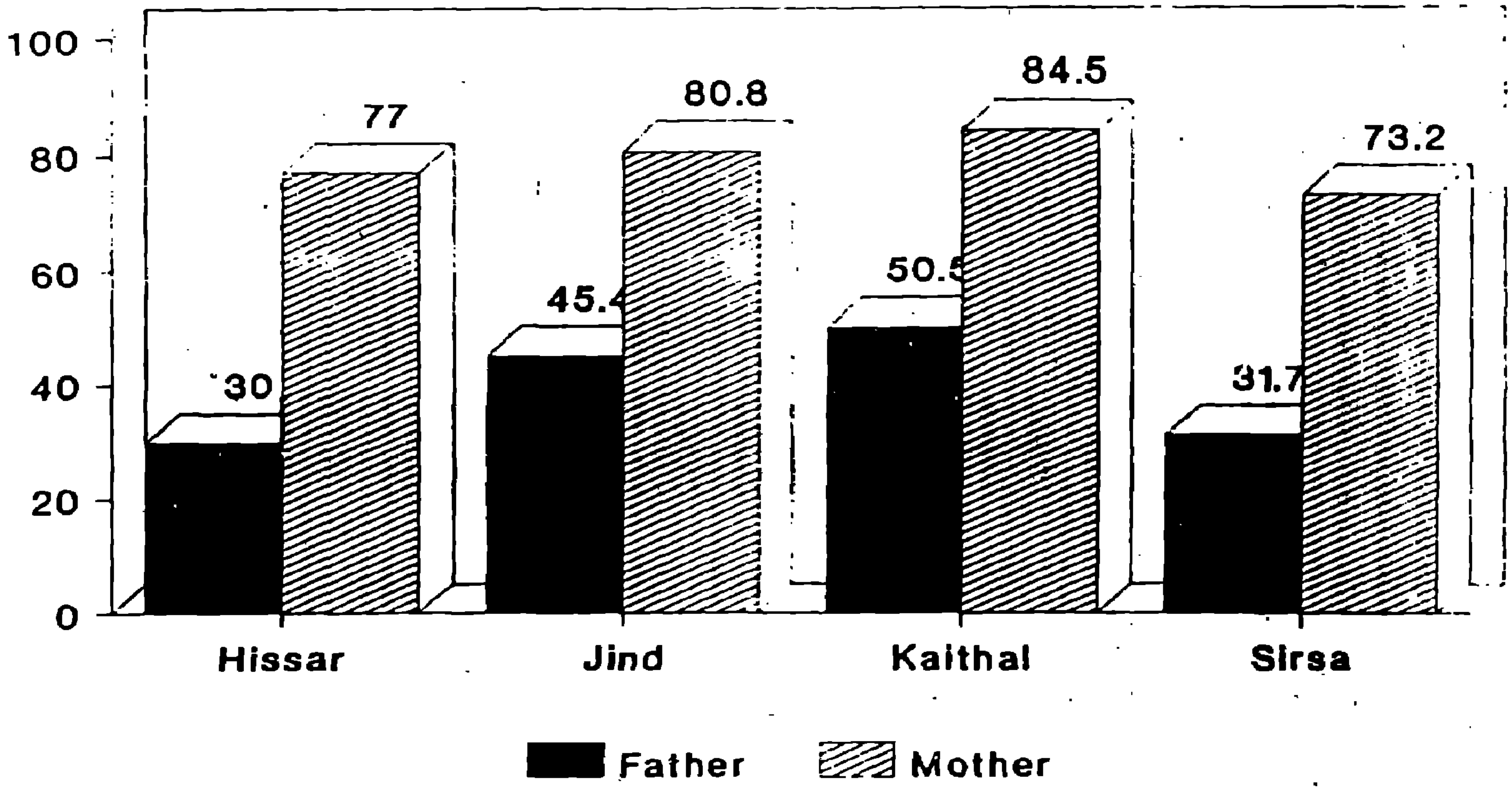


Fig. 7

Parental Educational Status

Many studies in the area reveal a strong relationship between the educational status of parents and achievement of children. With this aspect in mind the investigators interviewed the sampled children on the educational status of their parents. The educational status of parents as reported by the sample of Class V students is given in the table 3.1.7 below. It clearly indicates the disadvantaged position of education of parents in the four districts. About 70 to 85 per cent of the mothers of Class V pupils were illiterate while percentage of illiteracy of fathers ranged between 30 to 50 per cent in all the districts. Again the percentage of parents who have not undergone any formal schooling is shockingly low in all the districts. This is probably one of the main reasons, why assistance in academic work to children is provided by only a small percentage of parents.

Table 3.1.7: Distribution of Class V Students According to Educational Status of Parents

District	Educational Status	Father	Mother
Hissar	Illiterate	30.0	77.0
	Literate	00.8	00.3
	Primary	13.5	12.1
	High School and above	52.2	8.6
	Do not know	5.5	2.2
Jind	Illiterate	45.4	80.8
	Literate	0.4	1.1
	Primary	14.6	8.4
	High School and above	36.2	9.6
	Do not know	3.7	1.2
Kaithal	Illiterate	50.5	84.5
	Literate	0.5	0.2
	Primary	14.0	9.0
	High School and above	30.1	5.0
	Do not know	5.4	1.7
Sirsa	Illiterate	31.7	73.2
	Literate	1.4	1.4
	Primary	21.2	14.2
	High School and above	42.9	9.7
	Do not know	4.7	2.9

Table 3.1.8 below shows that the wards reported between 28-51 per cent of fathers cannot read book/newspapers or write a letter. The percentage of mothers in this category is much higher. From this, it may be concluded that a large percentage of parents who have gone to primary schools tend to loose their learning, especially in the case of fathers.

Table 3.1.8: Distribution of Class V Students According to Reading and Writing of Parents

District	Parents who cannot read books/ newspapers		Parents who cannot write a letter	
	Father	Mother	Father	Mother
Hissar	46.20	76.20	48.40	76.70
Jind	29.10	71.80	30.30	74.50
Kaithal	50.20	82.50	51.50	82.90
Sirsa	28.30	56.20	29.70	56.60

Academic Help

About half of Class V students receive academic help at home. A little more than half of the sample reported help being received from elder brothers and sisters. (Table 3.1.9). It seems logical because of the high illiteracy of parents as mentioned earlier. There is a very small percentage of mothers who are in a position to provide assistance in academic work to their wards. The data indicates that some children are getting help from more than one source. The quality of help is however not known. further detailed study can help to know the quantity and quality of help being given.

It is encouraging to note that more girls reported getting help in academic work than boys. The difference is however marginal.(Table 3.1.10)

Table 3.1.9: Percentage of Class V Students According to the Assistance Provided by Family Members

District	Gender	Father/ Gaurdian	Mother	Elder Brother/ Sister	Others
Hissar	Boys	22.40	07.50	60.50	15.00
	Girls	33.90	10.40	53.00	14.80
Jind	Boys	34.40	06.70	57.10	14.10
	Girls	31.60	03.30	59.50	17.70
Kaithal	Boys	27.00	03.10	59.50	19.00
	Girls	27.00	06.60	55.90	17.80
Sirsa	Boys	27.20	06.50	59.80	08.70
	Girls	32.50	09.40	59.40	12.50

Table 3.1.10: Percentage of Class V Students Getting Academic Help from Family

District	Boys	Girls	Total
HISSAR	41.80	47.70	44.20
JIND	49.40	55.60	52.70
KAITHAL	44.70	53.10	48.40
SIRSA	40.40	48.90	45.40

Head of the Family

As in most Indian families the father emerges as the head of the family in all the four districts. Children reported a very small percentage being headed by mothers and elder brothers. Less than one per cent reported having lost both of their parents (Table 3.1.11).

Table 3.1.11: Percentage Distribution of Class V Pupils According to Head of Family

District	Father/ Gaurdian	Mother	Elder Brother/ Sister	Others
Hissar	86.70	03.40	01.90	07.90
Jind	89.50	04.00	01.80	04.70
Kaithal	87.90	03.40	02.90	05.80
Sirsa	88.00	03.70	02.60	06.40

Medium of Instruction

Language is an important vehicle in learning. The sampled children were asked whether their mother tongue was the same as the medium of instruction in their school. A large percentage in both the rural and urban schools have replied in affirmative except in the district of Sirsa. (Table 3.1.12) The field notes reveal that this can be attributed to a large percentage of migrant labour population in this area.

Table 3.1.12: Distribution of Students According to Medium of Instruction (Mother Tongue)

District	Rural	Urban	Total	SC/ ST	OBC	Others
Hissar	91.80	95.80	92.60	95.90	91.30	92.20
Jind	98.80	95.20	98.20	98.10	100.00	97.80
Kaithal	91.90	99.10	93.20	94.10	93.20	92.40
Sirsa	58.10	55.00	57.50	64.40	49.30	57.30

Availability of Educational Materials

Analysis of availability of textbooks as reported in the interview by the sample reveals that except in Kaithal more than half of the Class V students reported purchasing more than four textbooks. This is an encouraging indication since the requirement is only four textbooks(Hindi, Mathematics, Environmental Studies, Science and Social Studies) at this level. For details see Table 3.1.13 below.

Table 3.1.13: Percentage of Class V Students Purchasing Text Books

Items	Hissar			Jind			Kaithal			Sirsa		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Language Textbook	99.70	99.70	99.70	100.0	99.50	99.70	99.70	99.70	99.70	98.20	98.50	98.40
Maths Textbook	99.70	99.60	99.70	100.0	99.00	99.40	100.0	100.0	100.0	99.60	99.40	99.50
Science/ Envirnmental Social Science Textbook (atleast one)	94.30	98.80	96.50	97.60	97.70	97.40	96.70	96.20	96.50	90.80	96.30	94.10
Any other book	69.30	64.30	67.30	66.40	65.10	65.70	65.50	63.60	64.70	79.80	82.00	81.10
Note Books	98.90	100.0	99.30	99.70	99.00	99.30	99.70	99.70	99.70	100.0	99.70	99.80
Slate	88.40	97.90	92.10	89.40	94.10	91.90	96.70	95.10	96.00	89.90	96.70	94.30
Pencils/ Pens	98.50	99.00	98.80	99.10	99.00	99.00	99.70	99.00	99.40	99.60	99:10	99.30

The table 3.1.13 reflects that in Jind and Kaithal girls have a slight edge over boys in purchasing more than four textbooks. An interesting feature is that the percentage of children reporting availability of more than four textbooks is higher in rural areas than their urban counterparts.

An attempt was also made to find out if the children possessed Language, Mathematics,Science/Environmental Science Textbooks, any other book, notebooks, slate, or pencil/pens. In the sampled districts without any genderwise bias more than 95 per cent children nearly reported availability of the above. However, except for the district of Sirsa (81.1) children's responses for any other book was lower ranging from 64-69 per cent (Table 3.1.14).

Table 3.1.14: Availability of Textbooks/Stationery for Students

Items	Hissar			Jind			Kaithal			Sirsa		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Language Textbook	99.70	99.70	99.70	100.0	99.50	99.70	99.70	99.70	99.70	98.20	98.50	98.40
Maths Textbook	99.70	99.60	99.70	100.0	99.00	99.40	100.0	100.0	100.0	99.60	99.40	99.50
Sc./EvS./ Social Sc. Textbook (atleast one)	94.30	98.80	96.50	97.60	97.70	97.40	96.70	96.20	96.50	90.80	96.30	94.10
Any other book	69.30	64.30	67.30	66.40	65.10	65.70	65.50	63.60	64.70	79.80	82.00	81.10
Note Books	98.90	100.0	99.30	99.70	99.00	99.30	99.70	99.70	99.70	100.0	99.70	99.80
Slate	88.40	97.90	92.10	89.40	94.10	91.90	96.70	95.10	96.00	89.90	96.70	94.30
Pencils/ Pens	98.50	99.00	98.80	99.10	99.00	99.00	99.70	99.00	99.40	99.60	99.10	99.30

Usability of Reading Materials

One of the goals of primary education is to introduce the child to reading skills and to encourage its development. The role of reading material other than textbooks in order to encourage good reading habits can never be underestimated. Only one-fifth students when asked responded positively for reading newspapers and magazines except for boys in Kaithal (Table 3.1.15).

Table 3.1.15: Distribution of Class V Students Reading Newspaper/Magazine

District	Boys	Girls
HISSAR	22.40	24.90
JIND	20.60	20.90
KAITHAL	06.30	17.10
SIRSA	13.60	20.80

Table 3.1.16: Access of Class V Students to Reading Material other than Textbooks (In percentage)

District	Boys	Girls	Total
HISSAR	34.7	35.3	34.9
JIND	39.1	41.3	40.3
KAITHAL	27.7	33.6	30.3
SIRSA	20.2	31.8	27.0

About 27 to 40 per cent of Class V students said they read comics, story books, etc. apart from textbooks. Teachers in primary schools need to focus on encouraging children to read. Children should be helped to make the right choice and exchange good reading material. Planning for loud reading in the morning assembly will also help in encouraging children.

The questionnaire required investigators to probe into the source of textbooks the children possessed. About 70 per cent students purchased textbooks and the remaining got old books from elder brothers and sisters or from the government (Table 3.1.17).

Table 3.1.17: Percentage of Class V Students Reporting Source of Textbooks

Source	Hissar			Jind			Kaithal			Sirsa		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Purchased	77.30	82.70	80.20	71.90	67.60	70.20	68.20	72.40	70.00	72.80	73.70	73.30
Supplied by the School	07.60	04.90	06.10	17.90	23.40	19.70	20.80	21.70	21.20	09.20	09.80	09.50
Used copies (brother/siste relatives)	11.80	09.00	10.30	06.80	07.90	07.30	04.70	04.50	04.60	10.50	11.00	10.80
Others	03.30	03.40	03.30	03.40	01.10	02.80	06.30	01.40	04.10	07.50	05.50	06.30

Educational Aspirations

The sampled children were asked to report about their educational aspirations. The analysis has been done genderwise, locationwise and castewise to see if any differences exist.

Table 3-1-18: Educational Aspiration of Class V Students (Genderwise)

District	Level	Boys	Girls	Total
Hissar	Do Not Know	03.20	04.80	03.80
	Primary	00.90	02.60	01.60
	Secondary and Hr Secondary	76.20	85.70	80.00
	Graduation	17.70	05.70	12.90
	Professional	02.00	01.20	01.70
Jind	Do Not Know	01.50	03.20	02.40
	Primary	00.30	1.90	01.10
	Secondary and Hr. Secondary	76.70	77.70	77.00
	Graduation	20.20	14.90	17.40
	Professional	01.20	02.10	02.00
Kaithal	Do Not Know	00.90	04.40	02.40
	Primary	00.30	03.00	01.40
	Secondary and Hr. Secondary	88.10	86.30	87.40
	Graduation	09.90	04.80	07.70
	Professional	00.80	01.50	01.10
Sirsa	Do Not Know	07.90	06.80	07.30
	Primary	00.00	02.40	01.30
	Secondary and Hr Secondary	77.7	80.50	79.3
	Graduation	14.00	07.20	10.20
	Professional	00.40	03.10	01.90

Genderwise analysis shows that more girls than boys do not know what they want to do in all the districts except Sirsa. Though marginally, more girls than boys want to study only upto the primary level. The boys outnumbered girls by far, in all districts in aspiration to study upto graduation level (Table 3.1.18).

Castewise analysis reveals a large percentage of children in all categories favoured higher/senior secondary level of education, with very marginal difference in castes. A very few children desired to go for a professional course.

Comparing the sample from rural and urban areas reveals that more rural students want to study upto the secondary level. On the other hand, more urban students want to achieve and go for professional education or upto graduation level (Table 3.1.19).

Table 3.1.19: Educational Aspiration of Class V Pupils Locationwise and Castewise

District	Level	Rural	Urban	SC	ST	OBC	Other
Hissar	Do Not Know	03 50	05.00	04.20	00.00	05.10	03.40
	Primary	01.30	02.50	02.50	00.00	00.90	01.60
	Secondary and Hr. Secondary	82.30	71.50	76.50	88.20	86.30	78.40
	Graduation	11 10	19.30	15.80	11.80	06.80	14 10
	Professional	01 80	01 70	00.80	00 00	00 90	02 50
Jind	Do Not Know	02.40	02.40	02.90	00 00	03.60	02 10
	Primary	01.30	01.60	02.90	00.00	00.00	01.10
	Secondary and Hr. Secondary	79.80	63.40	78.70	75.00	83.00	75.30
	Graduation	16.20	22.80	13.60	25.00	10.70	19.60
	Professional	01.30	09.80	01.90	00.00	02.70	01 90
Kaithal	Do Not Know	01.40	07.00	05.30	00.00	00.70	01.80
	Primary	01 30	01.70	00.00	03.80	02.10	01.50
	Secondary and Hr. Secondary	90.50	72.90	88.90	88.40	89.50	86 20
	Graduation	06.60	13.00	05.50	07.70	04.20	10.20
	Professional	00.20	05.40	00.00	00.00	03.50	00.30
Sirsa	Do Not Know	07.90	02.90	05.80	00.00	10.10	06.10
	Primary	01.20	01.90	01.20	00.00	00.80	01.90
	Secondary and Hr Secondary	80.30	76 80	81 20	71.40	81 30	77.50
	Graduation	08 20	18 40	09 40	14 30	07 80	12 10
	Professional	02 40	00.00	02 30	14 30	00 00	02 30

Percentage of Class 5 Students Failing More Than Once

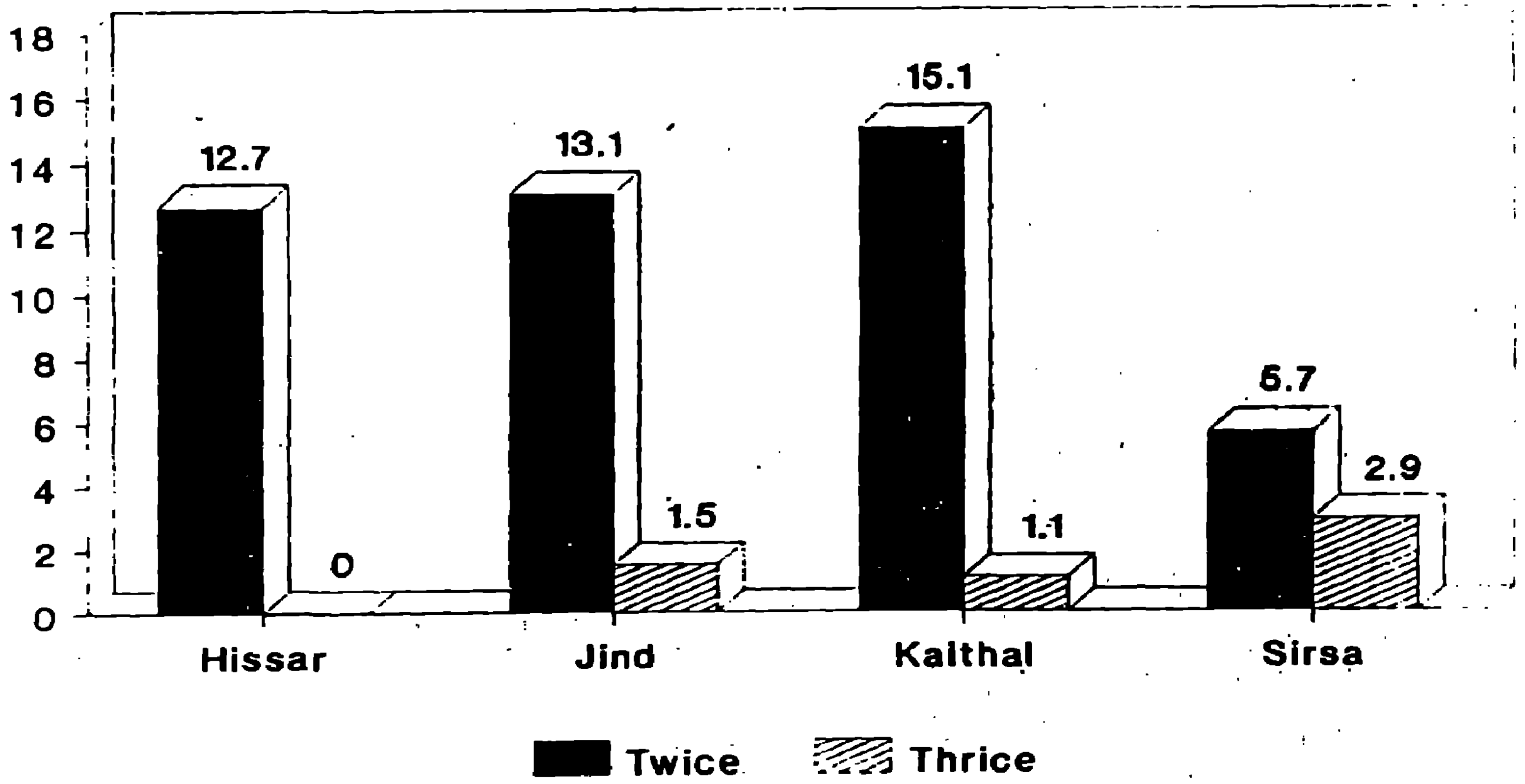


Fig. 8

Repetition of the Sampled Pupils

Comparing the number of times children repeated classes shows that there were more boy repeaters than girls. This is the only positive aspect emerging for education of the girl child and can be probably due to girls getting more academic help from family members than boys (Table 3.1.20).

Table 3.1.20: Classwise Failure/Detention of Students

District		1	2	3	4	5
Hissar	**Boys**	**02.30**	**02.80**	03.60	07.40	11.60
	Girls	**00.80**	01 70	08.70	10.40	04.00
	Total	01.70	02.40	01.80	08.60	08.80
Jind	**Boys**	01.80	00.90	09.10	01.30	14.80
	Girls	01.60	03.40	08.00	08.00	07.20
	Total	01.70	02.20	05.50	09.60	10.70
Kaithal	**Boys**	03.20	03.80	16.40	13.20	12.30
	Girls	**03.10**	**04.50**	12.60	09.10	07.00
	Total	**03.50**	**04.10**	14.70	11.40	10.00
Sirsa	Boys	02.20	03.90	10 10	16.20	03.90
	Girls	01.20	05.20	14 40	10 70	06 40
	Total	01.60	04.70	12.60	13.00	05 40

The Class V students failing thrice ranged from 1-3 per cent in the sampled districts. The percentage of students failing twice reveals that the lowest number of such children exist in Sirsa. **The percentage ranged from 12-15 in the other three** districts (Table 3.1.21).

Table 3.1.21: Class V Students Failing more than Once

District	Twice	Thrice
Hissar	12 7	0.0
Jind	13.1	1.5
Kaithal	15.1	1.1
Sirsa	5.7	2.9

RESPONSE FOR DISCONTINUING STUDIES

Enrolment drives have largely influenced the enrolment figures in primary education. However, the dropouts at the primary level are like termites affecting the system. To get further insight, the sampled Class V students were asked to give reasons if they choose not to study further.

Parents opposition is the main reason cited by the sampled pupils. Gender bias again is prominent except in the district of Hissar. More girls reported that parents do not want them to study. In the districts of Jind and Kaithal parents do not hinder education of boys at all.

Girls seem to role model their mothers. The data reveals that most mothers are engaged in household work. Like them, the girls are also doing household work. In all the districts, more girls than boys discontinue studies due to household work. In the districts of Hissar and Sirsa, more girls than boys reported studies as being too difficult as the reason. This again may be a result of not being able to devote sufficient time to studies because of household work. In the districts of Jind and Kaithal a reverse trend emerges (Table 3.1.22).

Table 3.1.22: Some Reasons for Discontinuance of Studies - Genderwise

	Hissar		Jind		Kaithal		Sirsa	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Parental Opposition	57.10	36.10	00.00	63.60	50.00	60.00	00.00	46.20
Household work	14.30	36.40	00.30	01.90	00.90	30.00	00.00	26.50
Studies too difficult	00.60	09.10	66.70	09.10	50.00	06.70	00.00	98.80

Comparing the SC, OBC and Others for reasons of discontinuing studies, parental opposition stands out again as the main cause followed by household work and studies being too difficult. The later is the main cause cited by the OBC in Jind. In the district of Sirsa, involvement in earning a living and training in household enterprise are also the reasons given by SC/ST children for discontinuing studies (Table 3.1.23).

Table 3.1.23: Some Reasons for Discontinuance of Studies - Castewise

	Hissar			Jind		
	SC/S	OBC	Others	SC	OBC	Others
Parental Opposition	50.00	55.60	50.00	33.30	33.30	62.50
Household Work	50.00	22.20	25.00	33.30	00.00	12.50
To Earn a Living	00.00	00.00	00.00	00.00	00.00	00.00
Training for Household Enterprise	00.00	11.10	00.00	00.00	00.00	00.00
Studies too Difficult	00.00	11.10	00.00	00.00	66.70	12.50
	Kaithal			**Sirsa**		
	SC	**OBC**	**Others**	**SC**	**OBC**	**Others**
Parental Opposition	60.00	00.00	00.00	33.30	22.20	27.80
Household Work	00.00	00.00	00.00	33.30	55.60	33.30
To Earn a Living	00.00	00.00	00.00	16.70	00.00	00.00
Training for Household Enterprise	00.00	33.30	00.00	16.70	00.00	00.00
Studies too Difficult	20.00	0.00	09.10	00.00	22.20	05.60

In the sample studied only a small proportion had worked for pay with more girls than boys involved in Jind and Sirsa. These child workers performed work other than agricultural work. Most of them reported involvement in domestic work such as cleaning utensils etc.

Table 3.1.24: Child Labour Indicies

	Hissar	Jind	Kaithal	Sirsa
Doing Paid Labour	03.00	02.50	07.60	02.60
Gender Distribution				
Boys	04.30	00.00	13.20	01.80
Girls	00.00	05.40	00.00	04.80

Teaching-learning Process - Pupils Perceptions

The sample class V students perceptions were sought regarding how often the teacher would come to class. Except for reports from Sirsa 65.70 per cent students reported teachers coming to class everyday in all the three districts. Again a negligible percentage report teachers coming rarely except in Sirsa (8.8 percent).

Table 3.1.25: Teacher Attending the Class (Students Perception)

Districts	Frequency	Boys	Girls	Total
HISSAR	Every Day	71.30	69.70	70.70
	Most of the Days	22.20	24.50	23.10
	Sometimes	05.40	05.00	05.20
	Rarely	01.10	00.80	01.00
JIND	Every Day	69.40	68.00	68.60
	Most of the Days	29.70	25.80	27.60
	Sometimes	00.60	05.90	03.50
	Rarely	00.30	00.30	00.30
KAITHAL	Every Day	62.70	69.60	65.70
	Most of the Days	31.00	27.60	29.50
	Sometimes	06.30	02.80	04.80
	Rarely	00.00	00.00	00.00
SIRSA	Every Day	43.40	49.20	46.80
	Most of the Days	36.00	33.60	34.60
	Sometimes	13.20	07.30	09.70
	Rarely	07.50	09.80	08.80

About 40 to 55 per cent of sampled pupils reported that during the absence of the teacher, another teacher is assigned to look after the regular teaching-learning process. Twenty five per cent of pupils reported working on their own while teacher is absent. The practice of multigrade teaching by combining the different classes in the absence of a teacher was also reported by 2 to 6 per cent of the sampled population in the four districts (Table 3.1.25).

Table 3.1.25(a) indicates existence of traditional monitor system in the sample schools. The districts of Sirsa(27.9) leads in this regard followed by Kaithal (21.8), Jind (15.2) and Hisar (9.1).

Table 3.1.25a: Work Done in Teacher's Absence (Student Perception)

% Schools Practising Norm	Hissar	Jind	Kaithal	Sirsa
We work on our own	22.60	25 50	30.10	21.60
Another pupil supervises our own work	09.90	15.20	21.80	27.90
Another teacher is assigned	54 30	55.40	41.20	42.70
Classes are combined	06 40	03.10	02.00	04 50
We Play or go home	06 70	00 70	04 80	03 20

The role of the teacher is one of the important factors in the teaching-learning process which determines its effectiveness. In the classroom the teachers role can be visualised through various teaching practices adopted to facilitate the learning. About 55 to 62 per cent of the sampled pupils reported that they are given dictation by teachers everyday. But the results of achievement test in language was not in conformity with this (Table 3.1.27). Also, 80 to 95 per cent of the students reported that arithmetic problems are given to them everyday (Table 3.1.26). Again, their achievement level in arithmetic contradicts this fact (Table 3.1.27).

Table 3.1.26; Percentage of Class V Students Reporting Different Instructional Activities in the Classroom

% Schools Practising Norm	Hissar	Jind	Kaithal	Sirsa
Dictation Everyday	55.50	60.10	64 70	62.00
Arithmetic Problems Everyday	79 80	91 80	94 50	81 10
Tests at least once a month	40 80	25 50	39 30	19 60
Homework (Regularly)	93 60	95 80	93 20	80 90
Test Feedback	69 80	79 40	85 60	71 90
Homework is correlated	74 00	78 20	81 70	74 40

Table 3.1.27: Correlation of Classroom Instruction with Achievement

	Hissar	Jind	Kaithal	Sirsa
Language (Mean Test Score)	35.26	38.91	38.99	34.57
Dictation Given (In Percentage)	55.50	60.10	64. 70	62.00
Mathematics Test (Mean test Score)	15.25	15.81	15.65	13.85
Arthematic Test (In percentage)	79.80	91.80	95.50	81.10

The practice of assigning homework to by the teacher students was reported by all students. The test taken and homework assigned in class with proper feedback enhances the achievement level of the pupil to a large extent. The study indicates that about 2/3 of the pupils get regular feedback with regard to tests and homework. Details are shown in Table 3.1.26. However tests do not explain this situation in-service training programmes need to focus on these areas in order to improve childrens achievement in the Language and Mathematics.

Looking at the teaching learning process indpet students were questioned on whether they face any difficulty in which the teacher teaches them. Only in the district of Sirsa the issue was a concern.

Table 3.1.28: Students Difficulty in Understanding Teachers Language While Teaching.

District	Boys	Girls	Total
Hissar	15.60	09.50	13.20
Jind	06.10	09.00	07.70
Kaithal	08.80	02.80	06.10
Sirsa	33.80	29.40	31.20

In order to understand the work status of the sampled children they were questioned about their period of absence from the school. No child reported being absent for several months in Jind and Kaithal. Majority of the children have been absent for only a few days in all the four districts (Table 3.1.29).

Table 3.1.29: Period of Absence of Students

Districts	Period of Absence	Boys	Girls	Total
HISSAR	A Few Days	85.10	78.90	83.30
	Several Weeks at a stretch	10.50	05.80	12.10
	Several Month	04.30	05.30	04.50
JIND	A Few Days	93.00	91.90	92.50
	Several Weeks at a stretch	07.00	08.10	07.50
	Several Month	00.00	00.00	00.00
KAITHAL	A Few Days	94.70	96.40	95.50
	Several Weeks at a stretch	05.30	03.60	04.50
	Several Month	00.00	00.00	00.00
SIRSA	A Few Days	95.80	98.10	97.40
	Several Weeks at a stretch	04.20	00.00	01.30
	Several Month	00.00	01.90	01.30

PARENTS OCCUPATIONAL BACKGROUND

Table 3.1.30 shows occupation of parents of the sampled Class V children. It indicates that the father is engaged in agricultural work in more than half of the cases. A traditional family pattern also emerged in all the districts. The mother's engagement is predominantly taking care of the household. For those parents of sampled pupil having non-agricultural occupations, the majority of them were engaged in unskilled labour.(Table 3.1.31)

Table 3.1.30: Percentage Distribution of Class V Students According to Type of Parents Occupation

	Hissar		Jind		Kaithal		Sirsa	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother
Agricultural	60.90	03.60	51.90	04.20	60.10	04.20	47.70	04.50
Non-Agricultural	39.70	95.53	44.60	95.80	37.20	95.60	48.80	93.30

Table 3.1.31: Percentage Distribution of Class V Students According to Categories of Father's Occupation (Non-agricultural)

Occupation	Hissar	Jind	Kaithal	Sirsa
Household	0.3	0.0	0.8	0.2
Domestic Servant	0.5	0.4	0.5	0.0
Street Vendor	3.0	2.4	1.2	2.3
Manual Unskilled Worker	8.8	8.9	9.4	7.0
Skilled Worker	4.2	3.9	4.8	8.10
Clerical worker	2.0	2.4	1.2	1.6
Self Employed	4.0	2.1	2.0	3.1
Employer/ Businessman	1.2	3.2	1.7	2.2
Manager/Sr Officer	0.8	0.8	0.2	0.9
Others	11.2	20.5	15.2	23.4

Ownership of Assets

Haryana is predominantly an agricultural state and the economic status of the sampled pupils families is indicated by the land owned, existence of wells, animals and availability of water and electric supply. Table 3.1.32 indicates that about 60 per cent of the pupils reported having their own land in the districts of Hissar, Jind and Kaithal. In Sirsa the picture is not so good where only 46.6 per cent of the pupils indicated having their own land for agriculture.

Table 3.1.32: Ownership of Some Important Assets

	Hissar	Jind	Kaithal	Sirsa
Land	64.10	66.90	59.40	46.60
Animals	83.10	84.70	87.30	81.30
Ordinary Well (Own Well)	16.90	20.80	09.00	18.00
Bore Well (Tube Well)	36.30	91.10	20.50	41.80
Electric Connection	86.30	44.50	90.50	90.90

The average land owned as reported by pupils was found in the range of 10-12 acres. Amongst the four districts Jind has a slight edge over the others with the average land holding above 13 acres.(Table 3.1.33)

In all the districts more than 80 per cent of the sampled pupils reported keeping domestic cattle. On an average the animals owned fall in the range of 4 to 5. In the district Sirsa the average was found to be the lowest.

Table 3.1.33: Size of Land Holding and Number of Animals Owned

	Hissar	Jind	Kaithal	Sirsa
Mean Land	09.86	13.45	10.30	11.36
S.D. (holdings in acres)	11.71	81.13	51.11	13.80
Valid Cases	373	480	391	246
Number of Animals				
Mean Land	05.05	04.42	05.09	03.90
S D (holdings in acres)	07.60	05.79	04.85	06.70
Valid Cases	593	717	651	555

The availability of drinking water and electric supply is an indicator of prosperity of the people. The research study shows a dismal picture as regards to the availability of water. Only 9 to 20 per cent of the people have their own wells and 20-45 per cent of the sampled population have tube wells for irrigation purposes. In the state of Haryana, where all villages are reported to be electrified the study shows results in conformity. For details see Table 3.1.32.

Nutritional and Health Status

A good nutritional status of children is essential during the formative primary school years. The data reveals that in all four districts, sampled children are being sufficiently wellfed. The Table 3.1.34 below indicates that above 95 per cent of the pupils are getting all meals during the day, except in Sirsa where 18 per cent reported, getting evening meals only sometimes and 1.6 per cent never get the morning meal. The field notes indicate that these children run to school just after taking a cup of tea.

Table 3.1.34: Nutritional Status of Sampled Pupils

Meals Availability	Hissar			Jind		
	M	A	E	M	A	E
Always	98.80	99.00	99.50	99.70	99.40	99.70
Sometimes	01.00	00.70	00.50	00.60	00.60	00.50
Never	00.20	00.30	00.00	00.00	00.00	00.00
Meals Availability	**Kaithal**			**Sirsa**		
	M	**A**	**E**	**M**	**A**	**E**
Always	**99.50**	**99.80**	**99.80**	**97.50**	**98.60**	**82.00**
Sometimes	**00.50**	**00.20**	**00.20**	**00.90**	**00.90**	**18.00**
Never	**00.00**	**00.00**	**00.00**	**01.60**	**00.50**	**00.00**

NB: M-Morning, A, Afternoon, E- Evening

The table 3.1.35 clearly indicates that children with special needs constitute a very small percentage ranging from 2.9 to 0.3 per cent only. Genderwise comparisons reveal that more girls than boys have problems related to vision, hearing, speech and limb deformity in Hissar and Sirsa.

Table 3-1-35: Physical Impairment/Disability among Students

Districts	Disability	Boys	Girls	Total
HISSAR	Vision	00.60	01.70	01.00
	Hearing	00.00	01.70	00.70
	Speech	00.30	01.70	00.80
	Limbs (Paralysis)/ Deformity	02.30	01.70	02.00
JIND	Vision	00.30	00.30	00.30
	Hearing	00.60	00.50	00.60
	Speech	00.90	00.80	00.80
	Limbs (Paralysis)/ Deformity	01.50	01.00	01.30
KAITHAL	Vision	00.50	01.00	00.80
	Hearing	00.80	00.00	00.50
	Speech	00.20	00.00	00.20
	Limbs (Paralysis)/ Deformity	02.70	00.70	01.80
SIRSA	Vision	01.30	01.80	01.60
	Hearing	00.98	02.80	02.00
	Speech	02.60	03.10	02.90
	Limbs (Paralysis)/ Deformity	03.50	02.40	02.90

Table 3-1-35a: Students Affected by Diseases

District	Disease	Boys	Girls	Total
Hissar	Fever	01.10	02.10	01.50
	Asthima/Respiratory/ Gastreoentrities	00.00	00.40	00.20
	Diarrhoea/Gastroenteritis	00.00	00.80	00.30
	Skin Disorders	00.30	01.20	00.70
JIND	Fever	00.30	01.00	00.70
	Asthima/Respiratory/ Gastreoentrities	02.10	00.50	01.30
	Diarrhoea/ Gastroenteritis	00.30	00.30	00.30
	Skin Disorders	00.90	01.00	01.00
KAITHAL	Fever	00.80	02.40	01.50
	Asthima/Respiratory/ Gastreoentrities	00.50	00.30	00.50
	Diarrhoea/ Gastroenteritis	00.00	00.30	00.20
	Skin Disorders	00.50	00.70	00.60
SIRSA	Fever	01.80	02.40	02.20
	Asthima/Respiratory/ Gastreoentrities	01.30	00.30	00.70
	Diarrhoea/ Gastroenteritis	00.40	00.90	00.70
	Skin Disorders	00.00	00.90	00.90

A healthy picture emerges as regards the health status of children. Very few children had any complaints regarding being effected by asthma, or diarrhoea. Occasional fever and sometimes a mild rash or skin disorder was reported by a few.

Table 3-1-36: Time Spent by Students on Watching TV/Video

Districts	Time (in Minutes)	Boys	Girls	Total
HISSAR	0 - 60	73.30	67.60	71.00
	61-120	22.40	27.80	26.60
	121-190	03.40	03.30	03.40
	181 and above	00.90	01.20	01.00
JIND	0 - 60	73.00	79.30	76.40
	61-120	24.80	17.60	20.90
	121-190	01.80	02.30	02.10
	181 and above	00.30	00.80	00.60
KAIT-HAL	0 - 60	66.30	77.30	71.10
	61-120	29.60	18.90	24.90
	121-190	02.70	03.10	02.90
	181 and above	01.40	00.70	01.10
SIRSA	0 - 60	61.80	70.60	67.00
	61-120	14.50	20.20	17.80
	121-190	00.00	00.60	00.40
	181 and above	23.70	08.60	14.80

Children were asked by the field investigators to report about their activities from the time they get up until the time they go to sleep on the days they attend school. Out of the seven items the table above provides details of time spent on watching TV/Video. In all the four districts about 70 per cent children reported spending an hour watching TV/Video. Further analysis of data is necessary to see its impact on the language achievement of children.

SECTION II

Class V Learning Achievement

The Class V students were administered tests (written) in language and mathematics to assess their level of learning at the end of the primary cycle. Average mean scores have been analysed along with the extent to which children have reached various levels of competency.

In the four districts of Haryana the Class V students who were administered Language Achievement Test (LAT) and Mathematics Achievement Test (MAT) came to 2516. This data was collected in September-December, 1993. Since the students were studying in Class V the goal was to assess their learning at the end of Class IV. Variations in achievement for boys and girls in rural and urban areas and among different categories of children (SC/ST, OBC and Others) were also analysed. The levels of achievement were also worked out. The tests were thus based on Class IV curriculum. These students were also interviewed to obtain information relating to general details and a number of background variables related to family profession and their economic status, pre-schooling, school related activities, attendance, availability of learning materials, transactions about teachers and teaching, school related activities at home and health and nutrition of students.

Language Achievement Test

Class V Language Achievement Test comprised of two sections. The word meaning (WM) test consisted of 40 items (antonyms and synonyms) and reading comprehension test of 44 multiple choice items. The reading comprehension items were classified further into four categories namely, meaning of words/sentences (RCM), finding factual details (RCF), drawing inferences (RCI) and getting at the central idea (RCC) (Table 3.2.1).

Table 3.2.1: Class V Language Test Profile

Area		Items
Word Meaning	Antonyms (WMA)	22
	Synonyms (WMS)	18
	Total	40
Reading Comprehension	Meaning of Words/Sentences (RCM)	5
	Factual Details (RCF)	24
	Inferences (RCI)	13
	Central Idea/Title (RCC)	2
Total Reading Comprehension		44

Mean Achievement of Class 5 Students in Language

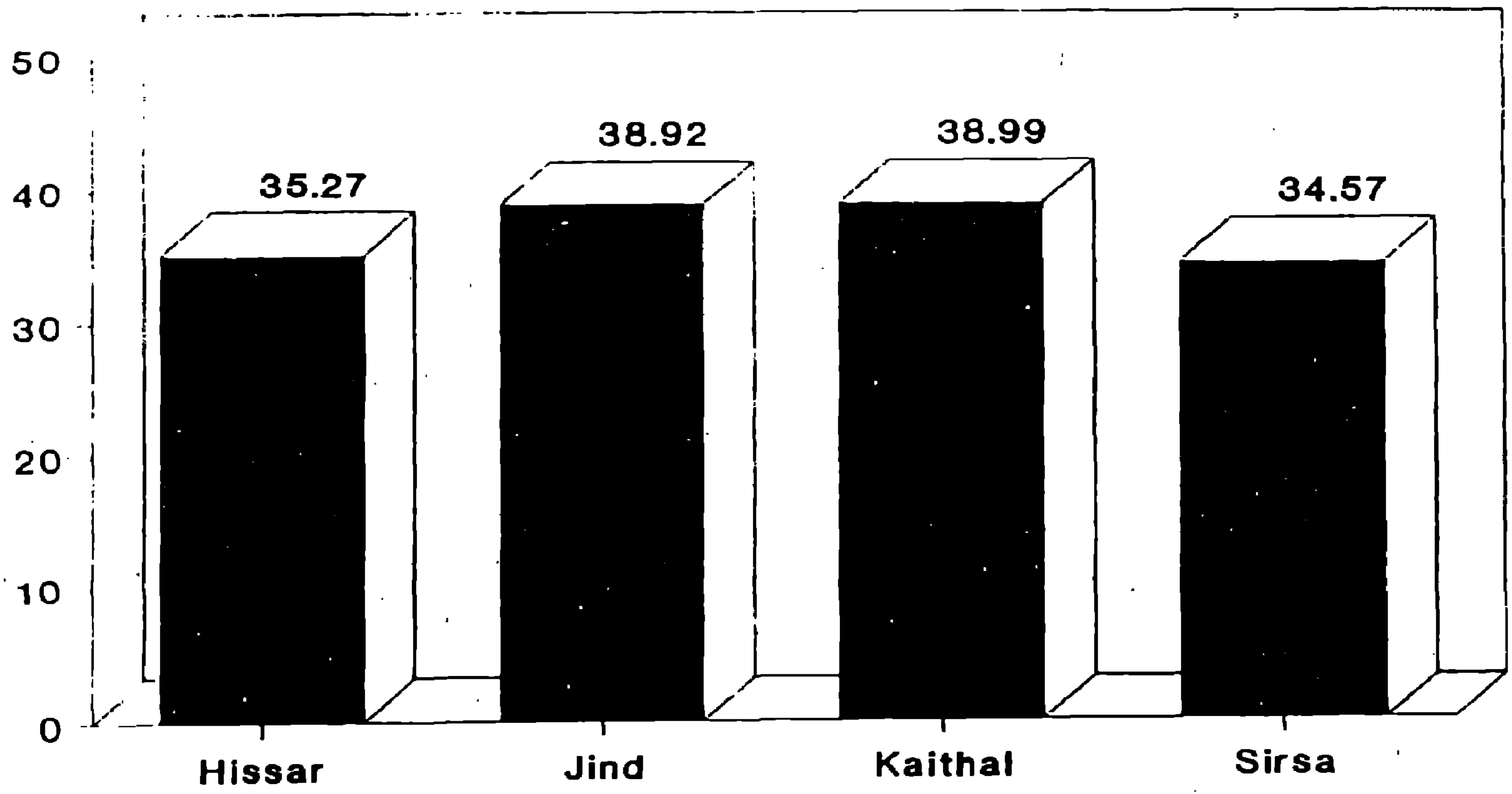


Fig. 9

Class V Students Achievement on LAT

The overall mean performance of pupils of sample districts on Language Achievement ranged from 34.57 in Sirsa to 38.99 in Jind. These scores were less than 50 per cent. Though marginally, the girls scored higher than boys in Hissar, Kaithal and Sirsa. With regards to area the scores were in favour of pupils from urban areas throughout the sample districts. Castewise comparison of scores on LAT revealed that in Jind and Kaithal the OBC pupils scored over the others while in Hissar and Sirsa the pupils from Others scored higher than pupils from SC and OBC category (Table 3.2.2).

Table 3.2.2: Mean Achievement of Class V Students in Language

Category	Hissar	Jind	Kaithal	Sirsa
Boys	34.18	39.63	38.84	34.64
Girls	36.85	38.27	39.19	35.23
Rural	34.62	37.75	38.83	34.00
Urban	37.80	44.30	39.72	36.93
SC/ST	34.03	37.70	37.93	33.50
OBC	33.25	40.45	40.06	34.62
Others	36.58	38.85	39.04	35.47
Total	35.27	38.92	38.99	34.57

Out of the total 84 items, the mean achievement comparison of word meaning (40 items) and reading comprehension (44 items) shows an overall better performance on word meaning test than on reading comprehension. This indicates that children are better at identifying similar and dissimilar words as compared to attempting questions with multiple choice answers after comprehending the passages. The mean achievement on word meaning test was around 40 per cent of the total score while on reading comprehension test it was 50 per cent of the total score in the districts of Jind and Kaithal. In Hissar and Sirsa mean achievement on reading comprehension test did not reach even the minimum of 40 per cent (Table 3.2.3)

In word meaning the sampled children's mean achievement was the highest in Kaithal followed by Jind. The performance of children in Sirsa and Hissar was almost similar. In reading comprehension the mean performance shows a greater variation and was highest in Jind and lowest in the district of Sirsa (Table 3.2.3).

It follows that more attention needs to be paid to language teaching and learning at the primary level especially in the area of reading comprehension.

Mean Achievement of Class 5 Students in Language (Genderwise)

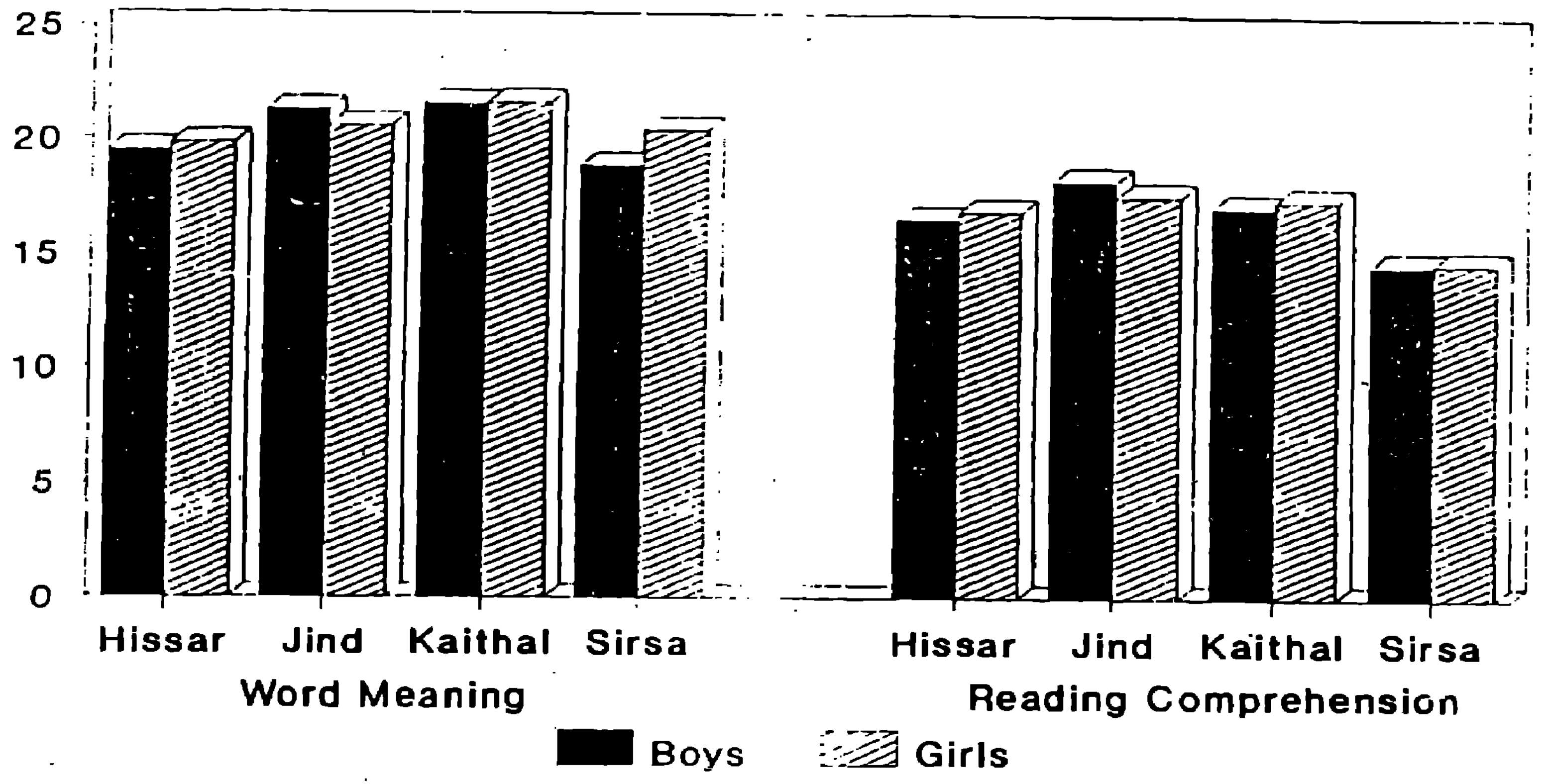


Fig. 10

Table 3.2.3: Mean Achievement of Class V Students in Language (Genderwise)

Language Area	District	Boys		Girls		Total		Significance
		Mean	SD	Mean	SD	Mean	SD	
Word Meaning	Hissar	19.49	06.44	19.85	07.16	19.64	06.74	No
	Jind	21.30	05.85	20.58	6.32	20.92	06.11	No
	Kaithal	21.59	05.93	21.65	06.33	21.61	6.11	No
	Sirsa	19.91	06.67	20.44	06.79	19.81	06.67	Yes
Reading Comprehension	Hissar	14.69	06.74	16.99	09.21	15.63	07.91	Yes
	Jind	18.33	06.52	17.70	07.01	18.00	06.79	No
	Kaithal	17.25	07.02	17.54	07.21	17.38	07.10	No
	Sirsa	14.73	05.86	14.79	06.14	14.76	06.02	No

Further comparing the performance of boys and girls on both the tests viz.; word meaning and reading comprehension shows that girls have scored better than boys in all the districts except in Jind where the boys had a slight edge. The differences were marginal and were not statistically significant except in Hissar and Sirsa where the girls scored significantly higher in reading comprehension and word meaning (Table 3.2.3). The data thus indicates that there seems to be no bias towards either sex in language at the end of the primary level.

Areawise Distribution of Scores

The urban pupils of all the four districts scored higher than their counterparts of rural areas in both reading comprehension and word meaning. However, the differences are not so significant in case of word meaning except in Jind. On the contrary in reading comprehension test the differences were found to be statistically significant in all the sampled districts except Kaithal (Table 3.2.4). The findings must be interpreted keeping in mind that the rural schools were far more in number (120) than urban schools (25) in the sample. The teachers need to properly reorient so that pupils may be trained to understand meaning of what they memorise, to recognise factual details, understand central idea and draw information about what they learn.

Table 3.2.4: Mean Achievement of Class V Students in Language (Locationwise)

Language Area	District	Rural		Urban		Significance
		Mean	SD	Mean	SD	
Word Meaning	Hissar	19.41	06.48	20.57	07.65	No
	Jind	20.70	06.10	21.95	06.06	Yes
	Kaithal	21.50	06.06	22.15	06.30	No
	Sirsa	19.64	07.00	20.50	05.06	No
Reading Comprehension	Hissar	15.22	07.93	17.23	07.65	Yes
	Jind	17.05	06.16	22.35	07.78	Yes
	Kaithal	17.34	07.10	17.57	07.13	No
	Sirsa	14.36	05.84	16.43	06.48	Yes

Mean Achievement of Class 5 Students in Language (Locationwise)

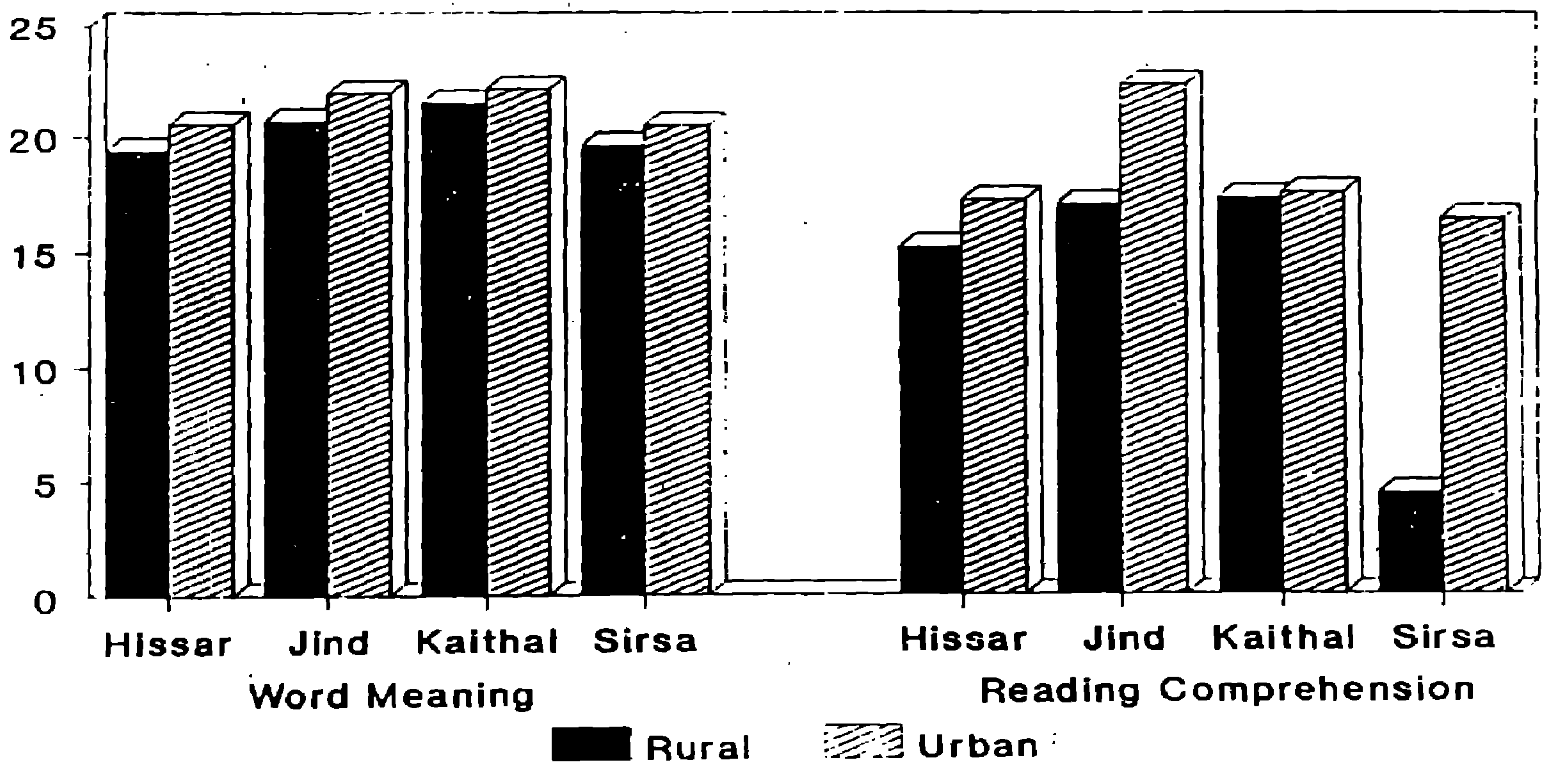


Fig. 11

Castewise Distribution of Scores

Due to a very few number of ST students the mean score of SC and ST were merged for all the four sampled districts. The mean scores of sampled children of the Others category were higher than their counterparts SC/ST and OBC children with the exception of those in Kaithal and Jind in both word meaning and reading comprehension. District specific trends are discernible in case of SC/ST and OBC sampled children. For instance there were significant differences in scores between SC/ST and OBC in case of Hissar and Kaithal. In the district of Hissar the SC/ST scored significantly better than OBC on word meaning test. On reading comprehension the difference was marginal (Table 3.2.5).

Table 3.2.5: Mean Achievement of Class V Students (Castewise)

Language Area	District	SC/ST		OBC		Others		Significance		
		Mean	SD	Mean	SD	Mean	SD	SC/S OBC	SC/ST Others	OBC-Others
Word Meaning	Hissar	19.33	06.42	18.49	06.11	20.22	07.05	Yes	Yes	Yes
	Jind	20.15	05.76	21.33	05.62	21.01	06.29	No	No	No
	Kaithal	20.81	05.94	22.47	06.29	21.63	06.07	Yes	No	No
	Sirsa	19.45	06.61	19.41	06.57	20.34	06.77	No	No	No
Reading Comprehension	Hissar	14.70	07.21	14.76	06.56	16.36	08.59	No	Yes	No
	Jind	17.55	06.85	19.13	06.39	17.84	06.85	No	No	No
	Kaithal	17.12	07.26	17.60	07.03	17.41	07.07	No	No	No
	Sirsa	14.05	05.51	15.12	05.94	15.13	06.43	No	No	No

Sub-Content Analysis

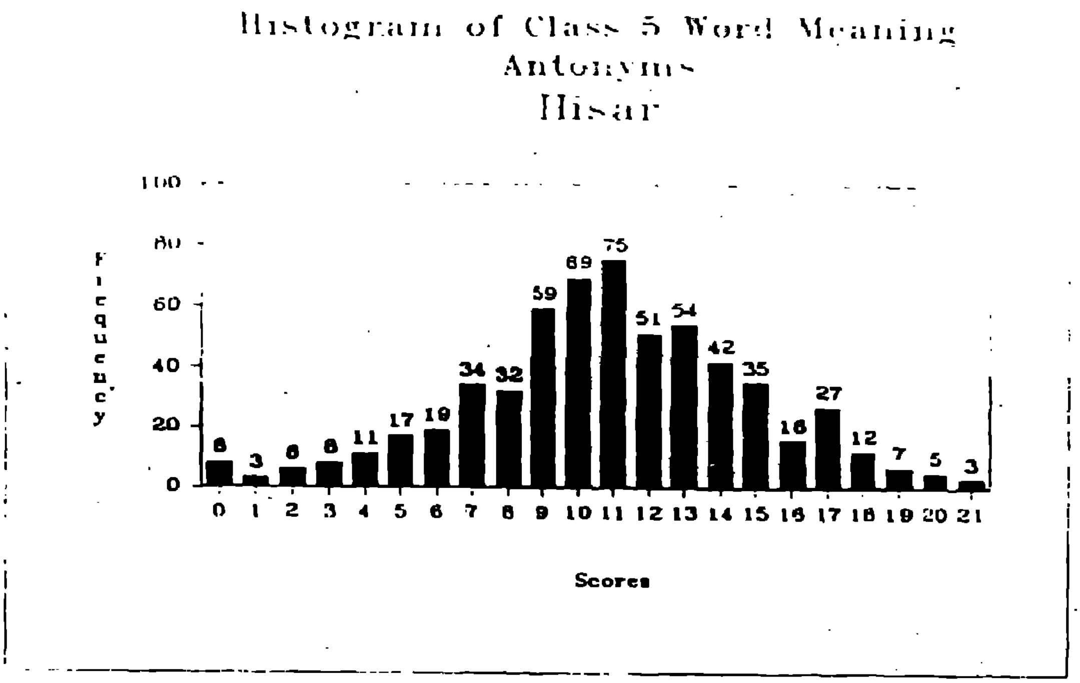
The subcontent analysis of word meaning in the form of antonyms and synonyms shows that overall, children have performed better on antonyms than synonyms. In synonyms the highest performance was in Kaithal followed by Jind. The performance was similar in the districts of Hissar and Sirsa (Table 3.2.6).

Table 3.2.6: Performance of Class V Language Test (Word Meaning)

		HISAR (n=593)	JIND (n=694)	KAITHAL (n=651)	SIRSA (n=555)
Language Variables	Items	Mean	Mean	Mean	Mean
Word Meaning Total (TOT1)	40	19.64	20.92	21.61	19.81
Word Meaning Antonyms (WMA)	22	10.92	11.73	11.94	11.09
Word Meaning Synomyms (WMS)	18	8.72	9.20	9.68	8.72

Inter district comparison of performance in antonyms again shows that the performance of children from Kaithal stand out followed by Jind and Sirsa. The children from Hissar have the least mean achievement (Table 3.2.6).

The subcontent analysis of reading comprehension shows inter district variations in performance on items involving reading comprehension in words sentences, factual details, inferences, title/central idea.

Histogram of Class 5 Word Meaning
Antonyms
Hisar
Frequency
100
80
60
40
20
0
8
3
6
8
11
17
19
34
32
59
69
75
51
54
42
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27
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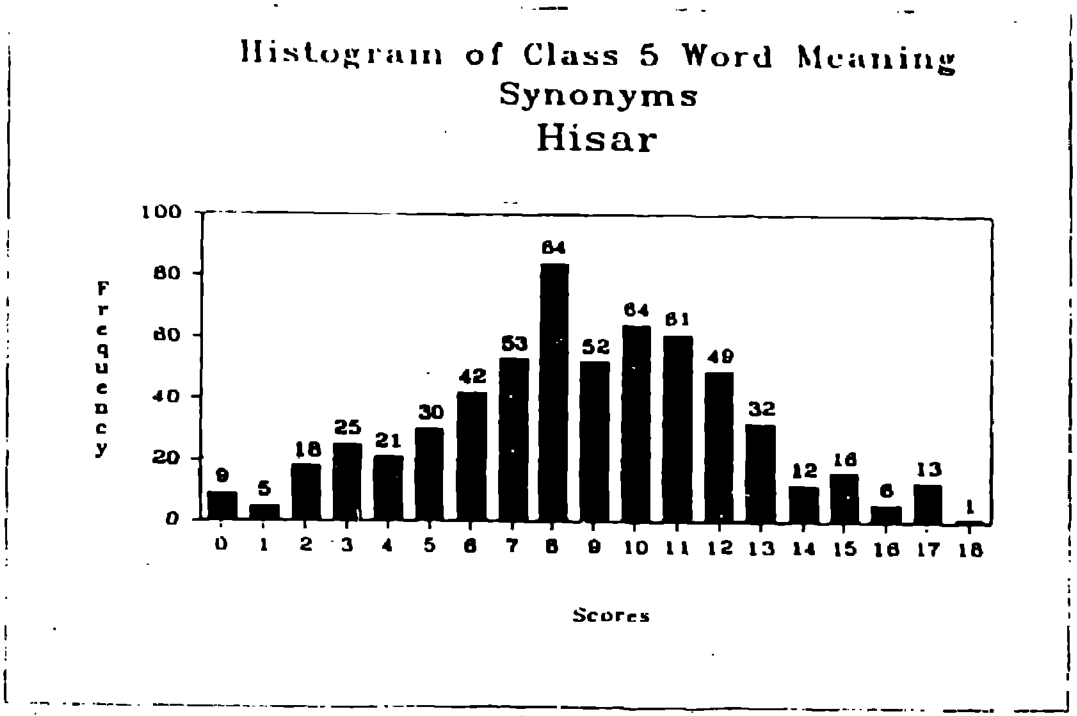
3
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
Scores

Fig. 12

Histogram of Class 5 Word Meaning
Synonyms
Hisar
Frequency
100
80
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53
84
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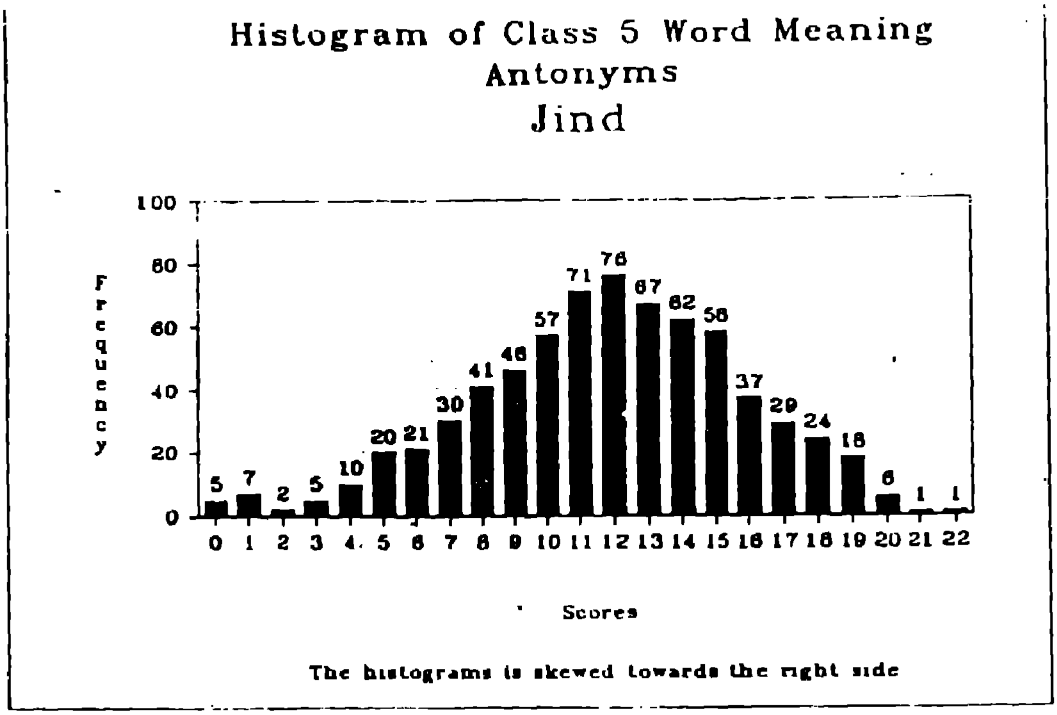
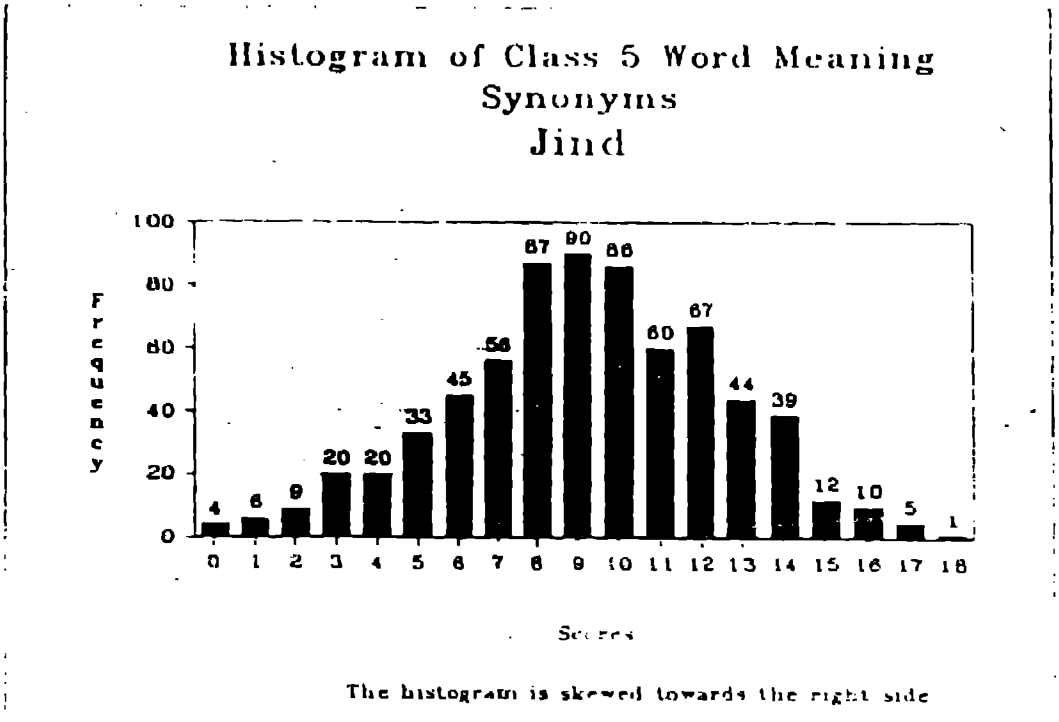
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Scores

Fig. 13


Histogram of Class 5 Word Meaning
Antonyms
Jind

The histograms is skewed towards the right side

Fig. 14


Histogram of Class 5 Word Meaning
Synonyms
Jind

The histogram is skewed towards the right side

Fig. 15

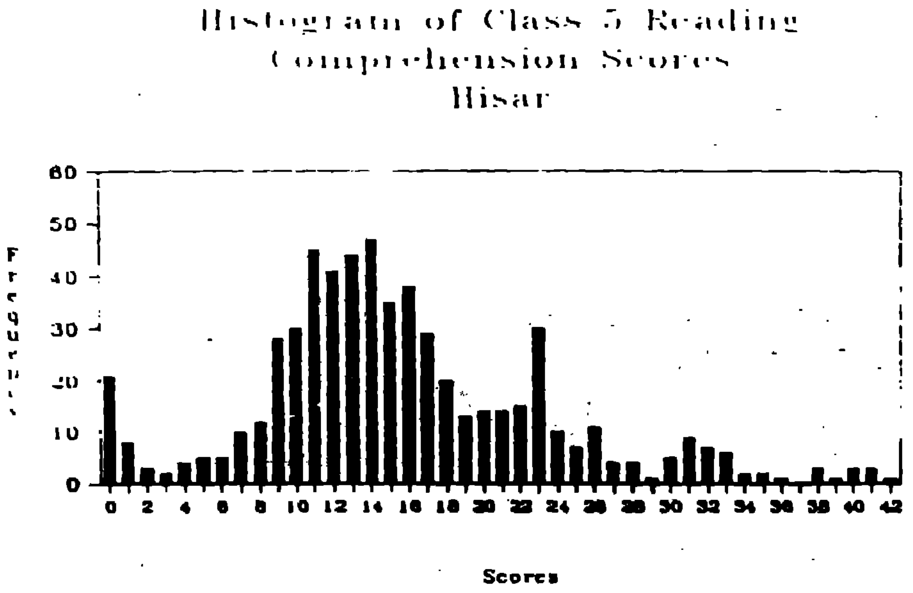
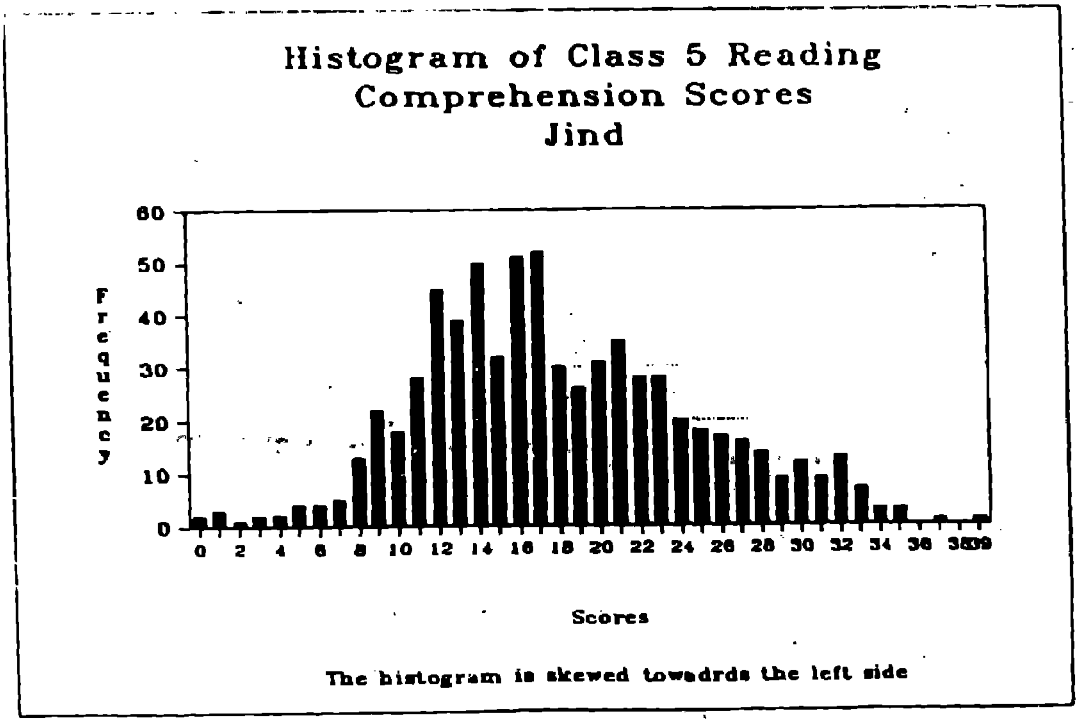


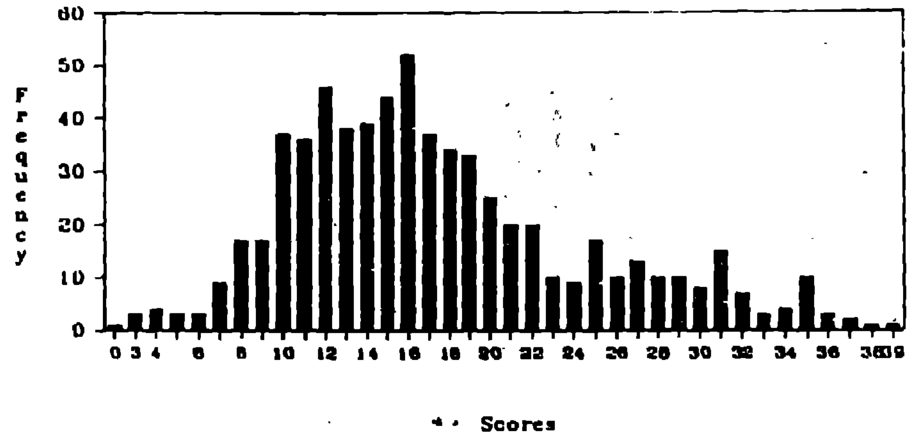
Fig. 20



The histogram is skewed towadrds the left side

Fig. 21

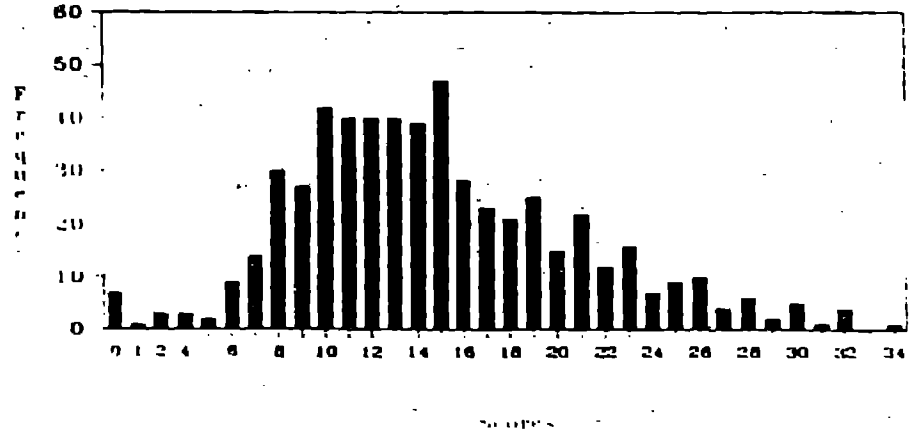
Histogram of Class 5 Reading
Comprehension Scores
Kaithal



The histogram is skewed towards the left side

Fig. 22

Histogram of Class 5 Reading
Comprehension Scores
Sirsa



The histogram is skewed towards the left side

Fig. 23

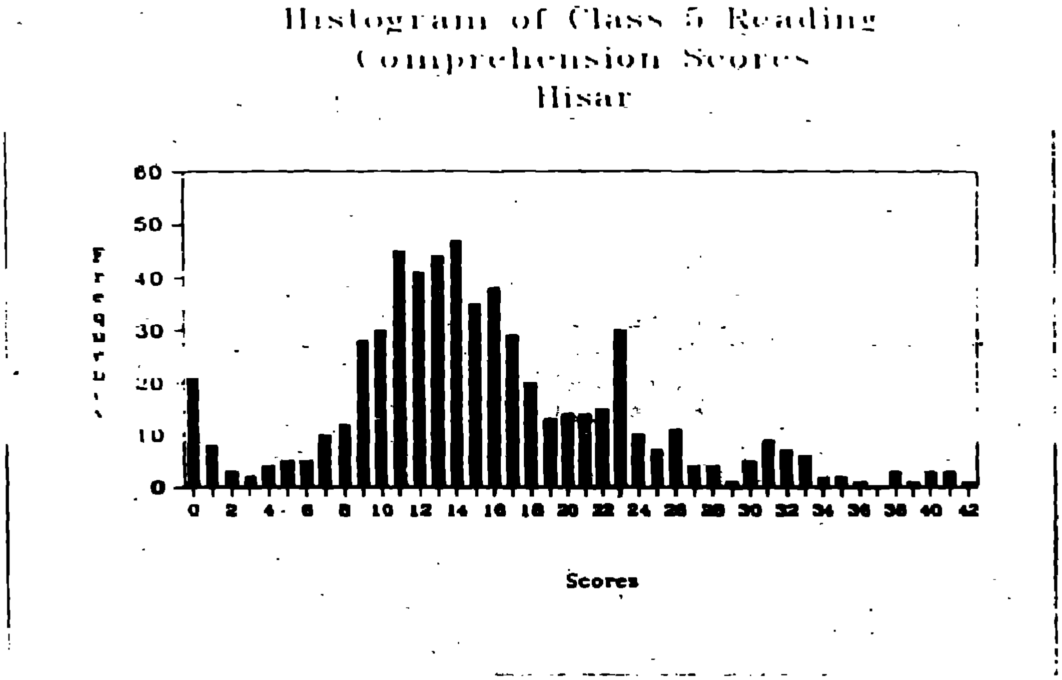
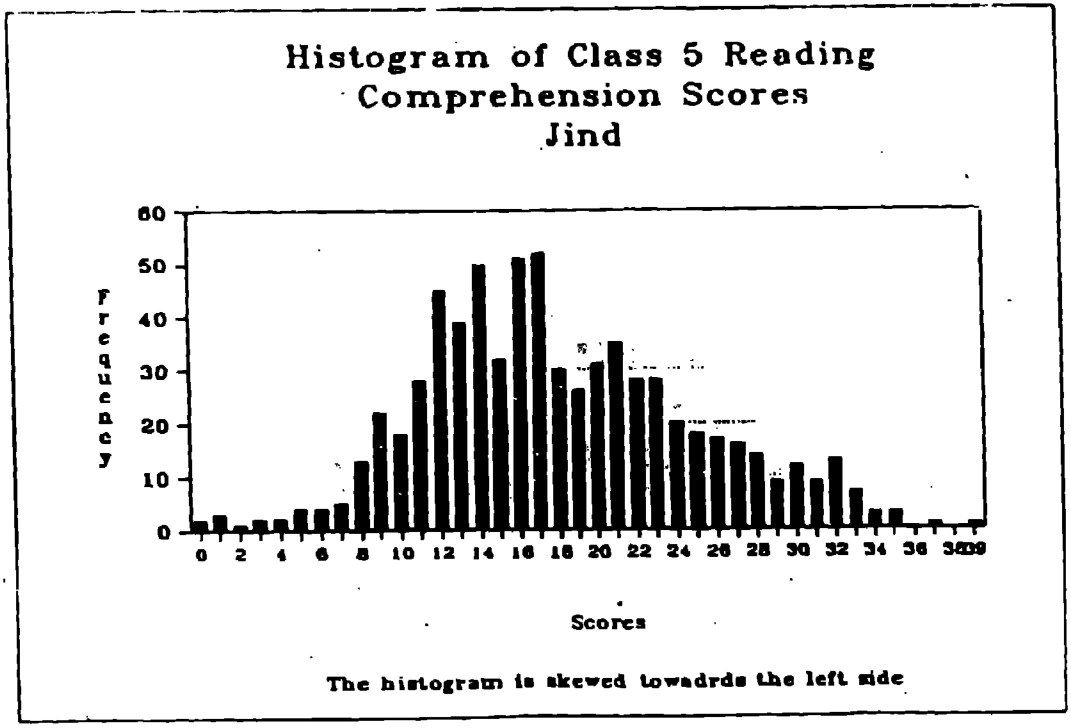
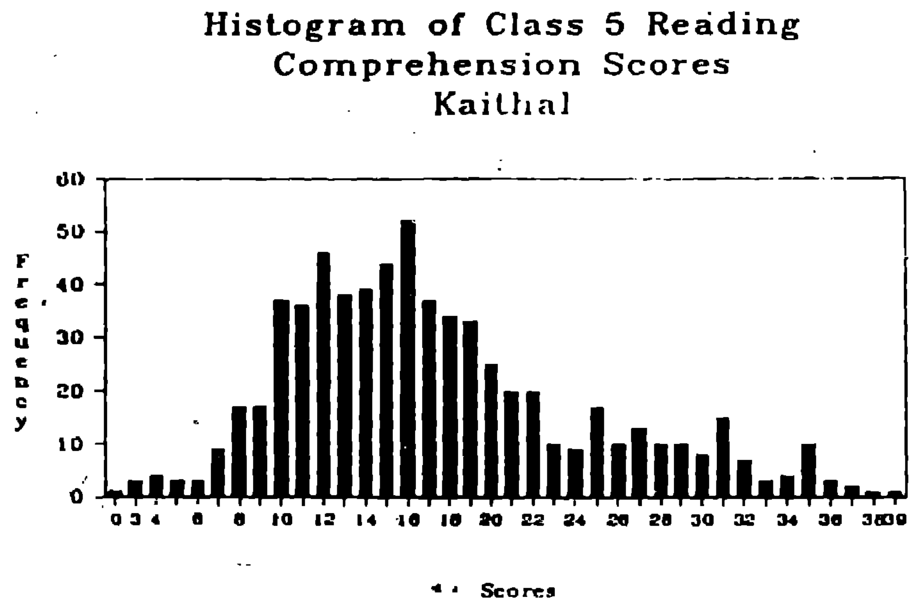


Fig. 20



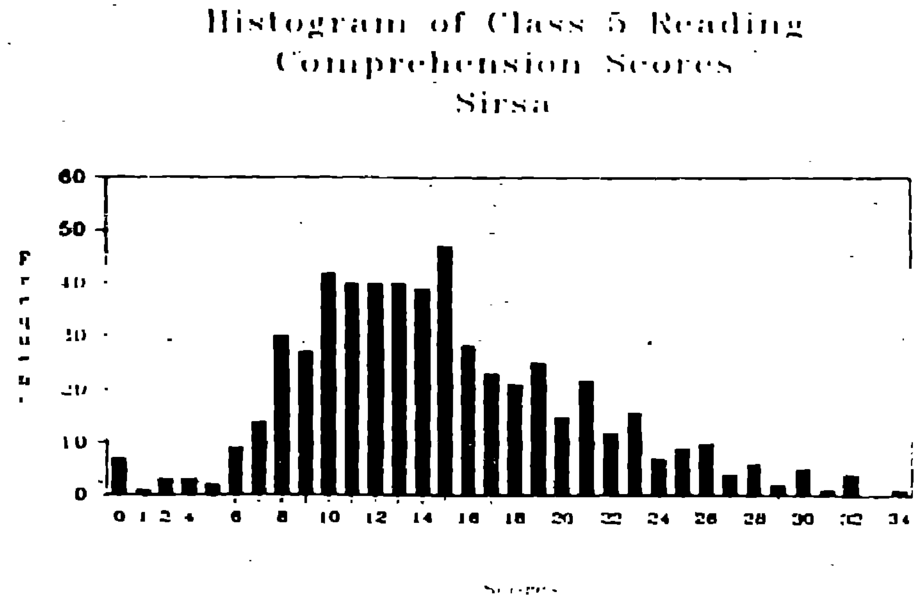
The histogram is skewed towadrds the left side

Fig. 21



The histogram is skewed towards the left side

Fig. 22



The histogram is skewed towards the left side

Fig. 23

Table 3.2.7 shows almost same mean performance in reading comprehension of meaning in words/sentences in Hissar, Sirsa and Kaithal. The highest mean achievement is seen in Jind.

Table 3.2.7: Performance of Class V Language Test (Reading Comprehension)

		HISAR (n=593)	JIND (n=694)	KAITHAL (n=651)	SIRSA (n=555)
Language Variables	**Items**	**Mean**	**Mean**	**Mean**	**Mean**
Reading Comprehension Total (TOT2)	**44**	**15.63**	**18.00**	**17.38**	**14.76**
Reading Comprehension of Meaning in Words/Sentences (RCM)	**5**	**0.88**	**1.45**	**0.98**	**0.75**
Reading Comprehension Factual Detail (RCF)	24	10.33	11.34	11.69	9.86
Reading Comprehension of Inferences (RCI)	13	**3.93**	**4.68**	**4.22**	3.70
Reading Comprehension of Title/Central Idea (RCC)	2	0.49	0.53	0.49	0.46

The mean achievement on the twenty four items involving reading comprehension of factual details was highest in Kaithal followed by Jind, Hissar and Sirsa where it was the lowest.

In reading comprehension inferences the performance of children falls in the range of 36 per cent to 28 per cent, the highest in Jind followed by Kaithal, Hissar and Sirsa.

In the two items involving reading comprehension of title/central idea performance is the same in Hissar and Kaithal. It is the highest in Jind and lowest in Sirsa.

Level of Achievement

The achievement levels were defined as:

1. *Zero Level*: Percentage of students achieving a score of zero.
2. *Not Achieving MLL:* Percentage students scoring more than zero but less than 40 per cent.
3. *Achieving MLL:* Percentage students scoring between 40-60 per cent.
4. *Approaching Mastery:* Percentage students scoring between 61-79 per cent.
5. *Mastery Level:* Percentage students scoring 80 per cent and above.

The analysis of results on achievement test for levels of performance have revealed that a very small percentage of children fall in the zero level bracket in both word meaning and reading comprehension. In word meaning the percentage of students ranges from 0.4 per cent in Jind to 2.3 per cent in Sirsa. In reading comprehension the range is between 0.3 per cent in Jind to 3.50 per cent in Hissar.

Percentage of Class 5 Students in Language Not Achieving MLL

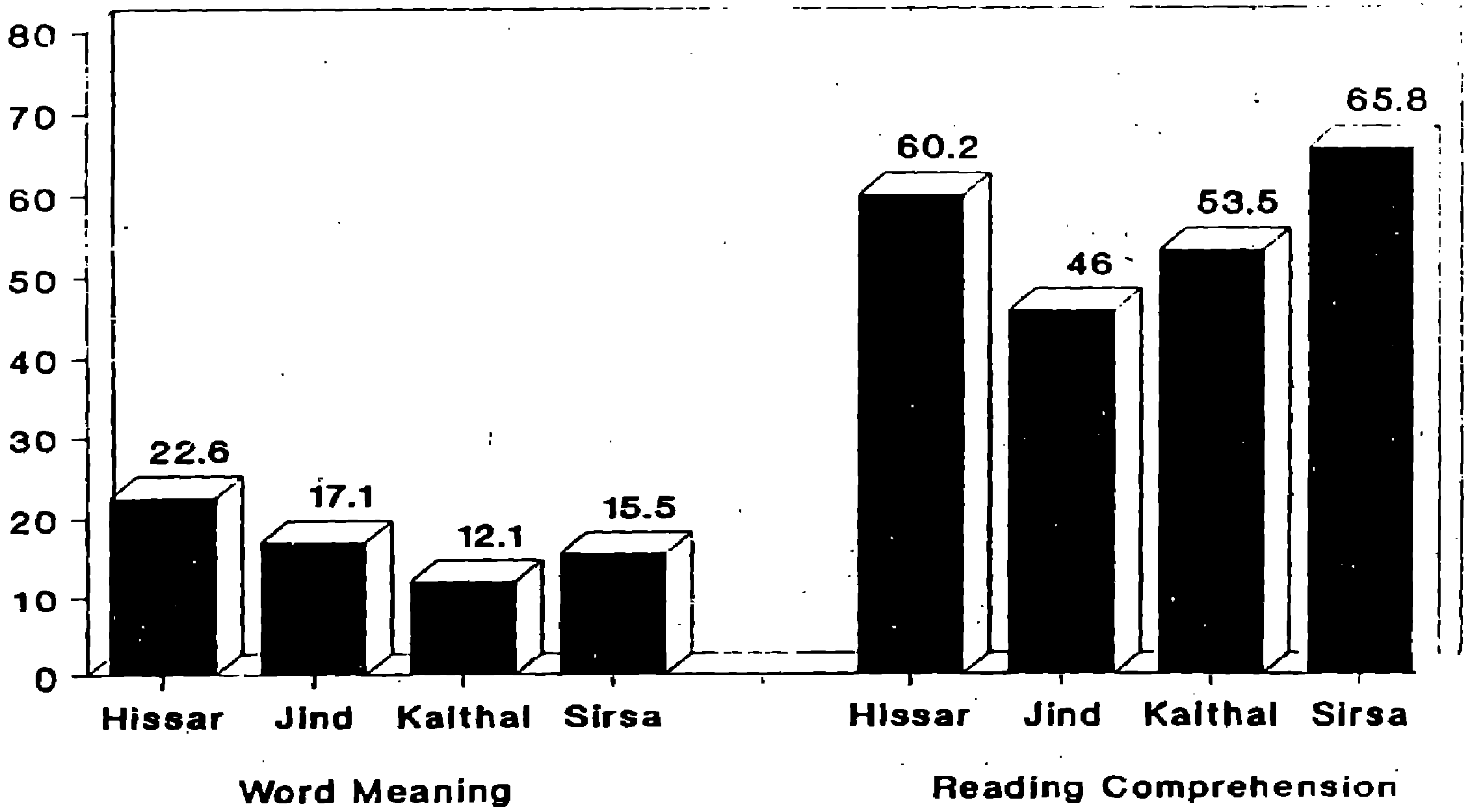


Fig. 24

Genderwise Level of Achievement

Comparing the performance of boys and girls on achievement levels reveals that in both reading comprehension and word meaning more girls achieved mastery level than boys in all the districts. The exceptions are in word meaning in Kaithal and reading comprehension in Sirsa where the boys had a slight edge over the girls. A clear trend is discernible in reading comprehension and word meaning at the level of approaching mastery where the percentage of girls is higher than boys. No trend is however evident among girls and boys not achieving MLL (Table 3.2.8).

Table 3.2.8: Percentage of Class V Students Achieving Different Levels of Achievement in Language (Genderwise)

Language Area	Level	Hissar			Jind			Kaithal			Sirsa		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Word Meaning	Zero Level	01.70	00.40	01.20	00.60	00.30	00.40	00.60	00.00	00.50	03.10	01.80	02.30
	Not Achieving MLL	20.20	26.60	22.60	15.20	19.00	17.10	12.40	11.10	12.10	16.20	15.00	15.50
	Achieving MLL	59.90	46.10	54.30	54.80	57.10	56.10	57.50	50.40	56.20	63.20	59.30	60.90
	Approaching Mastery	16.20	22.8	18.9	28.50	21.20	24.00	26.00	35.90	27.80	16.70	20.20	18.70
	Achieving Mastery	02.00	04.10	02.90	00.90	02.50	01.70	03.60	02.60	03.40	00.90	03.70	02.50
Reading Comprehension	Zero Level	03.10	04.10	03.50	00.60	00.00	00.30	00.30	00.00	00.20	01.80	00.90	01.30
	Not Achieving MLL	66.50	51.00	60.20	40.90	50.50	46.00	55.90	50.30	53.50	67.10	64.80	65.80
	Achieving MLL	21.60	28.60	24.50	42.10	30.50	36.00	27.10	31.10	28.90	23.70	26.60	25.40
	Approaching Mastery	07.70	11.20	09.10	15.80	17.30	16.60	13.70	15.00	14.30	07.00	07.60	07.40
	Achieving Mastery	01.10	05.00	02.70	00.60	[illegible]	01.20	[illegible]	03.50	03.20	00.40	00.00	[illegible]

Locationwise Level of Achievement

Comparing the different levels of achievement in rural and urban areas, it reveals that very few children in rural schools had failed to attempt even a single question correctly. In urban schools in Jind and Sirsa there was no such child. Again a very few number of students achieved mastery level on both components of the language test. Except in Hissar in all the other three districts more rural students could not achieve MLL status than their rural counterparts in word reading. In reading comprehension the same scene emerges in all the districts. In achieving mastery level, in both word meaning and reading comprehension there were more urban pupils as compared to their rural counterparts in Hissar and Jind (Table 3.2.9).

Table 3.2.9: Percentage of Class V Students Achieving Different Levels of Achievement (Locationwise)

Language Area	Level	Hissar		Jind		Kaithal		Sirsa	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Word Meaning	Zero Level	01.30	00.80	00.50	00.00	00.60	00.00	02.90	00.00
	Not Achieving MLL	22.40	24.20	17.70	14.50	12.40	11.10	15.70	14.70
	Achieving MLL	56.40	45.80	55.80	57.30	57.50	50.40	59.40	67.00
	Approach- ing Mastery	18.00	22.50	24.60	25.00	26.00	35.90	19.30	16.50
	Achieving Mastery	01.90	06.70	01.40	03.20	03.60	02.60	02.70	01.80
Reading Comprehension	Zero Level	04.00	01.70	00.40	00.00	00.00	00.90	01.30	00.90
	Not Achieving MLL	61.70	54.20	49.80	28.20	54.70	47.90	67.50	58.70
	Achieving MLL	24.30	25.00	37.50	24.00	28.70	29.90	24.90	27.50
	Approach- ing Mastery	07.40	15.80	12.10	37.10	12.90	20.50	06.30	11.90
	Achieving Mastery	02.50	03.30	00.20	05.60	3.7	0.9	00.00	00.90

Castewise Level of Achievement

A clear district specific trend can be traced among the caste category of students. More OBC pupils in Hissar and Sirsa could not achieve MLL status in word meaning. In Jind and Kaithal there were more pupils from SC/ST category in the same situation. On the other hand in reading comprehension in all districts the more SC/ST pupils could not achieve the MLL status. Very few children could achieve mastery level in both word meaning and reading comprehension. No such children existed in the OBC category in Hissar and Sirsa in reading comprehension component.

3.2.10: Percentage of Class V Students Achieving Different Levels of Learning in Language (Castewise)

Language Area	Level	Hissar			Jind			Kaithal			Sirsa		
		SC/S	OBC	Others	SC/S	OBC	Others	SC/S	OBC	Others	SC/S	OBC	Others
Word Meaning	Zero Level	00.70	00.80	01.50	00.90	00.90	00.20	00.00	00.00	00.90	02.70	02.20	00.90
	Not Achieving MLL	23.40	24.60	21.80	19.80	10.90	18.00	15.40	11.00	11.10	15.70	17.40	14.20
	Achieving MLL	54.60	61.90	51.20	56.80	61.80	54.50	58.00	52.70	56.90	62.20	63.00	58.60
	Approaching Mastery	19.90	11.90	21.20	22.50	25.50	24.90	24.70	30.10	28.30	16.80	16.70	21.60
	Achieving Mastery	01.40	00.80	04.30	00.00	00.10	01.60	01.90	06.20	02.90	02.70	00.70	03.40
Reading Comprehension	Zero Level	01.40	03.20	04.60	00.90	00.00	00.20	00.00	00.00	00.30	01.60	01.40	00.90
	Not Achieving MLL	68.10	67.50	54.00	45.90	41.80	46.90	58.00	50.70	52.50	69.20	65.90	62.90
	Achieving MLL	21.30	20.60	27.30	39.60	38.20	34.70	24.10	33.60	29.20	24.30	24.60	26.70
	Approaching Mastery	07.80	08.70	09.80	10.80	19.10	17.30	13.00	13.00	15.50	04.90	08.00	09.10
	Achieving Mastery	01.40	00.00	04.30	02.70	00.90	00.80	04.90	02.70	02.60	00.00	00.00	00.40

Difficult Areas

Students encountered difficulty in answering inference items and items requiring getting at central idea or writing the title.

Mean Achievement of Class 5 Students in Mathematics

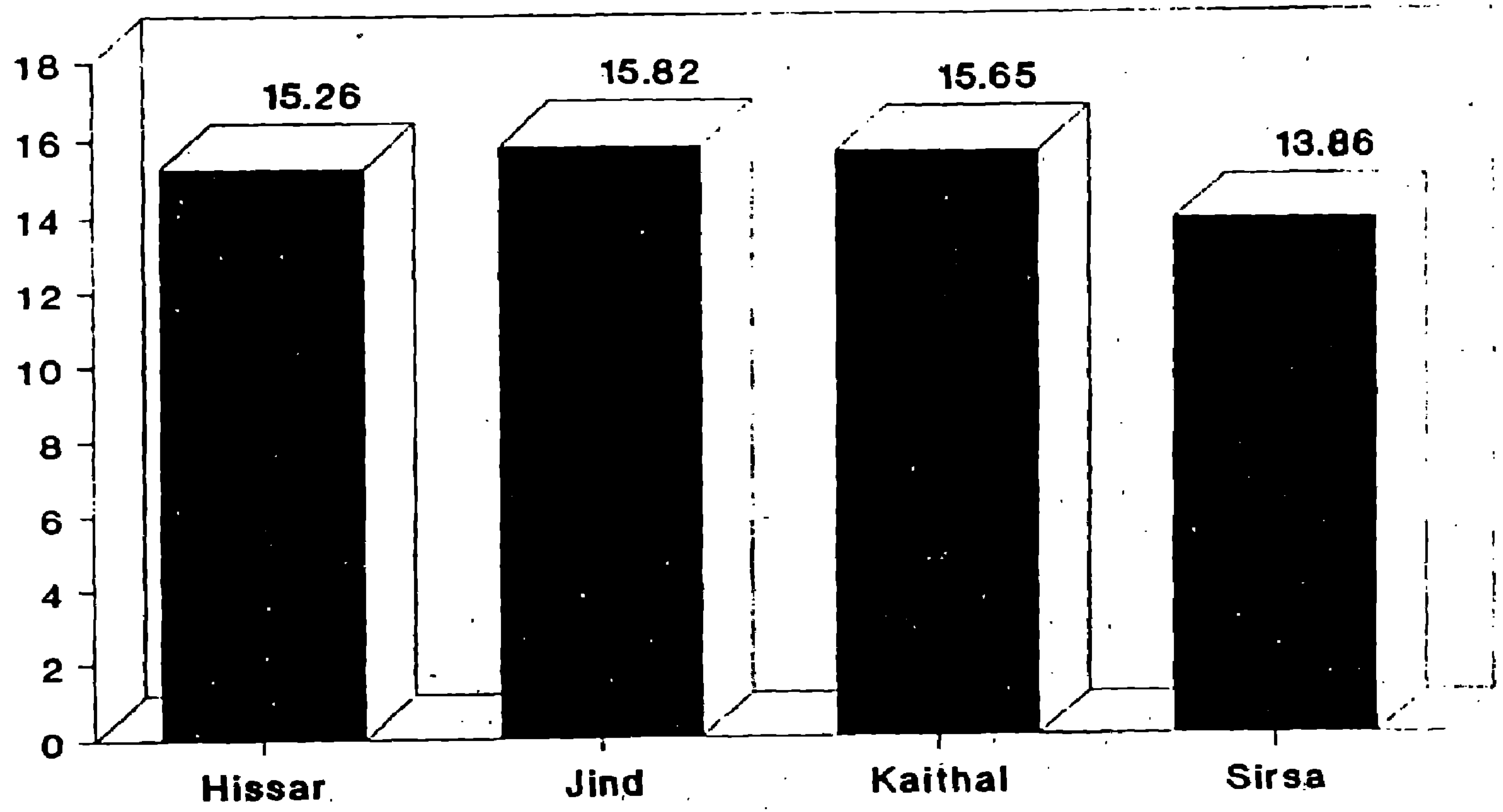


Fig. 25

Mathematical Achievement Test

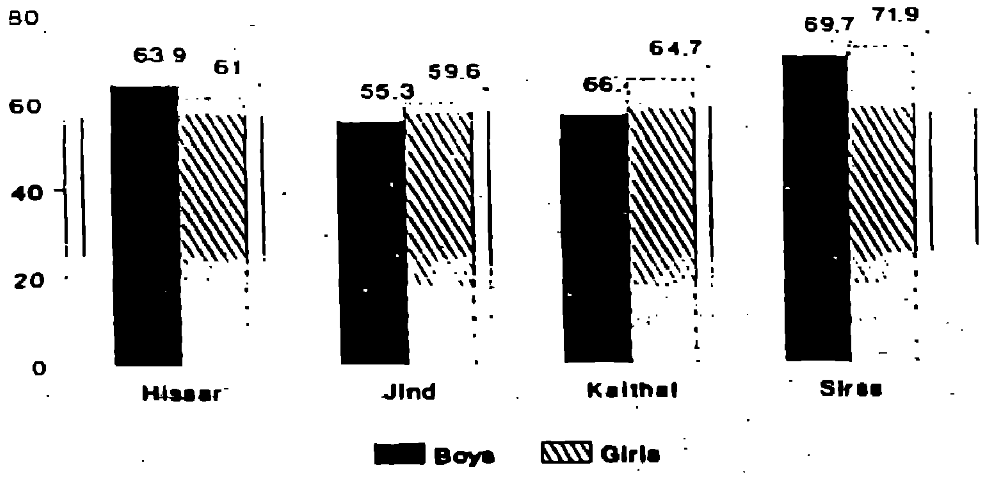
The Mathematical Achievement Test (MAT) was constituted by 40 items covering 12 different content areas of mathematical ability. All the 12 content areas accounted to four fundamental operations, unitary method, time, weight and measures, decimals, fractions and geometry. Number of items representing to various content areas of MAT were not equal. Difficulty level of items was framed in accordance to Class IV curriculum of Mathematics. Content areawise number of items constituting the MAT is given in Table 3.2.11.

Table 3.2.11: Mathematics Test Profile

Content Area	Number of Items
Addition	2
Subtraction	2
Addition + Subtraction	2
Multiplication	3
Division	4
Unitary Method	1
Multiples	6
Fractions	6
Decimal	6
Time	3
Weights and Measures	3
Geometry	2
Total	40

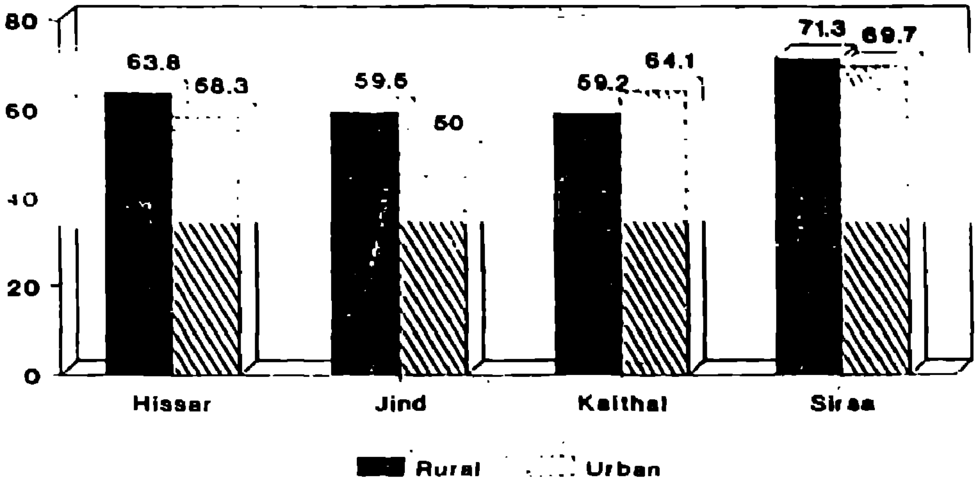
Genderwise Pupils Performance on MAT

As revealed from Table 3.2.12, the average achievement of pupils of the four districts could range between 13.86 to 15.82, out of the total 40 points. The average achievement of pupils of Jind district was highest (15.82) followed by Kaithal (15.65), Hissar (15.26) and lowest in Sirsa (13.86). This indicated that on an average pupils of all four districts could not score more than 40 per cent. While the differences in achievement between Hissar, Jind and Kaithal were marginal, in Sirsa, the achievement was quite low (below 35%).



Class 5 Students Not Achieving MLL in Mathematics (Genderwise)

Fig. 26



Class 5 Students Not Achieving MLL in Mathematics (Locationwise)

Fig. 27

Table 3.2.12: Mean Achievement of Class V Students in Mathematics (Genderwise)

District	Boys		Girls		Total		Significance
	Mean	SD	Mean	SD	Mean	SD	
Hissar	14.97	05.24	15.67	06.06	15.26	05.59	Yes
Jind	16.12	05.44	15.54	05.16	15.82	05.30	No
Kaithal	16.27	05.78	14.87	05.18	15.65	05.56	Yes
Sirsa	14.03	04.77	15.74	05.01	13.86	04.91	No

It was quite interesting to note the gender differences on Mathematics Achievement Test. While girls scored higher than boys in two districts (Hissar and Sirsa) the reverse was true for other two districts (Jind and Kaithal). The gender differences were found significant in Hissar and Kaithal indicating better performance among girls and boys respectively. In other two districts (Jind and Sirsa), of course gender differences were marked, but the mean differences were found insignificant statistically. However, it seems clear that gender could become a significant variant of pupils performance in mathematics.

Areawise Performance of MAT

A look at the Table 3.2.13 confirmed that location of schools (rural and urban) influenced the mathematical achievement of sample pupils. While the pupils of urban areas of Hissar and Jind scored significantly higher than their counterparts of rural areas, the reverse was the case in Kaithal. In Sirsa, no such remarkable difference was found out between rural and urban pupils. This area and district specific variations suggested that the factors those either facilitate or inhibit should be identified in order to reduce the inequality existing between rural and urban pupils' performance.

Table 3.2.13: Mean Achievement of Class V Students in Mathematics (Locationwise)

District	Rural		Urban		Significance
	Mean	S.D.	Mean	S.D.	
Hissar	15.18	05.50	15.58	05.98	Yes
Jind	15.55	05.19	17.05	05.61	Yes
Kaithal	15.91	05.50	14.47	05.74	Yes
Sirsa	13.86	05.06	13.84	04.26	No

Castewise Performance on MAT

The Table 3.2.14 shows that SC/ST pupils scored lower than OBC and other categories on MAT in all the four districts. The pupils of others category performed significantly better than SC/ST in Hissar and in Kaithal whereas the OBC pupils did so in Hissar and Sirsa. Only in Hissar, the other category people significantly outperformed OBC pupils. In Jind, caste could not influence the performance of pupils significantly. Similarly, in Kaithal of course, caste differences were marked, indicating a higher score for other categories followed by OBC. The differences between SC/ST and OBC, and OBC and Others were not statistically significant. In Sirsa, similarly, Others did not differed significantly from SC/ST and OBC. A lower score among SC/ST pupils, however, suggested that, special attention should be paid towards their educational development.

Table 3.2.14: Mean Achievement of Class V Students in Mathematics (Castewise)

District	SC/ST		OBC		Others		Significance		
	Mean	SD	Mean	SD	Mean	SD	SC/ST-OBC	SC/ST-Others	OBC-Others
Hissar	13.77	05.59	14.50	05.57	16.19	05.44	Yes	Yes	Yes
Jind	15.60	05.55	16.12	05.54	15.80	05.19	No	No	No
Kaithal	14.66	04.83	15.50	05.66	16.18	05.79	No	Yes	No
Sirsa	13.15	04.29	14.57	05.06	14.00	05.22	Yes	No	No

Genderwise levels of achievement in Mathematics

In reference to the level of achievement in mathematics, pupils of Sirsa lagged behind the pupils of other three districts. More than two third (71%) of the sample pupils of Sirsa did not achieve MLL. In other three districts about 60 per cent of the sample pupils constituted the 'No MLL' group. A negligible percentage of pupils showed performance at Zero level, in all the four districts. The percentage of pupils who achieve MLL ranged from about 25 per cent to 35 per cent indicating highest for Jind and lowest for Sirsa. Similarly, on 'approaching mastery' the percentage of pupils of Sirsa was lowest (2.9%) followed by Jind 6.60%), Kaithal (8.90%) and Hissar (9.10%). Like the 'zero level', the percentages of pupils who could achieve mastery in mathematics were also negligible (ranged from 0.0 to 0.4%).

So far as gender differences was concerned among the pupils falling in 'No MLL' level, the percentage of girls was higher than those of boys in Jind, Kaithal and Sirsa. This scenario changed with respect to higher levels of competency. In all the four districts, percentages of girl who achieved MLL and mastery were less than boys. It was also the case on approaching mastery in Jind, Kaithal and Sirsa, whereas in Hissar and percentage of boys approaching mastery was more than girls.(Table 3.2.15)

Table 3.2.15: Percentage of Class V Students Achieving Different Levels of Achievement in Mathematics (Genderwise)

Level	Hissar			Jind			Kaithal			Sirsa		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Zero Level	00.30	00.80	00.50	00.00	00.00	00.00	00.50	01.40	00.90	00.00	00.90	00.05
Not Achieving MLL	63.90	61.00	62.70	55.80	59.60	57.80	56.40	64.70	60.10	69.70	71.90	71.00
Achieving MLL	28.7	26.10	27.70	36.70	33.80	35.20	30.70	28.30	29.60	28.90	22.90	25.40
Approaching Mastery	07.10	12.00	09.10	06.70	06.60	06.60	11.80	05.20	08.90	00.90	04.30	02.90
Achiveing Mastery	00.00	00.00	00.00	00.90	00.00	00.40	00.50	00.30	00.50	00.40	00.00	00.20

Locationwise Levels of Achievement in Mathematics

Areawise difference on Levels of achievement in mathematics indicated that percentage of urban pupils achieving zero level were higher in Hissar and Kaithal (0.80 to 4.30 respectively) than their rural counterparts. While Jind witnessed no pupil achieving zero level either in rural or urban Sirsa witnessed the same only in urban area. The percentage of pupils not achieving MLL were higher in rural area in the districts of Hissar, Jind and Sirsa whereas reverse was the case in Kaithal. Similarly with respect to achieving MLL (score between 17 to 24%) of urban pupils of Hissar, Jind and Sirsa was higher than their rural counterparts. The reverse was true in Kaithal. On approaching mastery urban pupils was higher in Hissar and Jind and lower in Kaithal and Sirsa. Interestingly, no urban pupils in Sirsa could achieve mastery in mathematics. Negligible percentage of pupils in both rural and urban areas of the other three districts achieved mastery. (Table 3-2-16)

Table 3-2-16: Percentage of Class V Students Achieving Different Levels of Achievement in Mathematics (Locationwise)

Level	Hissar		Jind		Kaithal		Sirsa	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Zero Level	00.40	00.80	00.00	00.00	00.20	04.30	00.70	00.00
Not Achieving MLL	63.80	58.30	59.50	50.00	59.20	64.10	71.30	69.70
Achieving MLL	27.30	29.20	34.40	38.70	30.70	24.80	24.20	30.30
Approach ing Mastery	08.50	11.70	06.00	09.70	09.60	06.00	03.60	00.00
Achieving Mastery	00.00	00.00	00.20	01.60	00.40	00.90	00.20	00.00

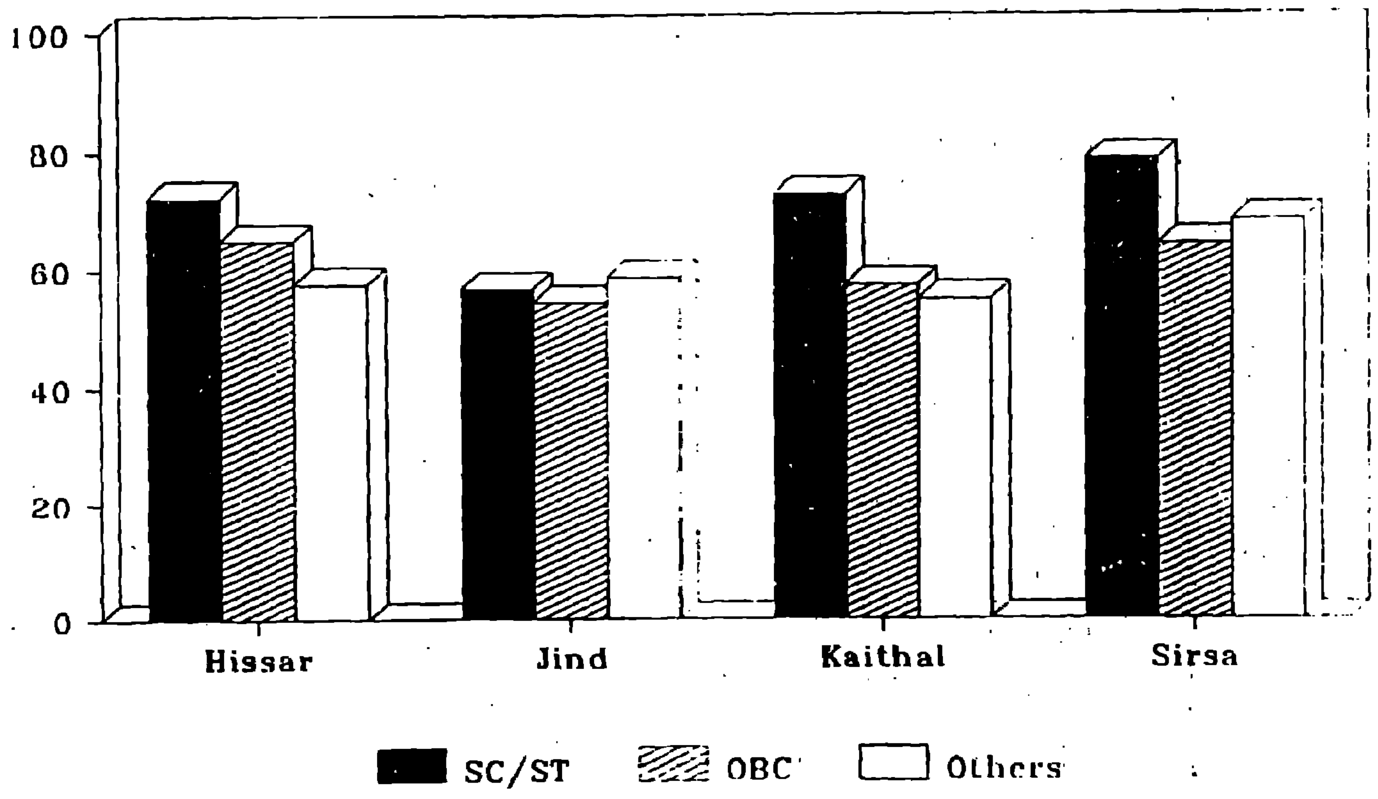
Castewise Levels of Achievement in Mathematics

It was interesting to note that no caste group achieved zero level in Jind. In other three districts percentage of OBC pupils achieving zero level was highest followed by SC/ST and Others. The percentage of pupils not achieving MLL was highest for SC/ST in Hissar, Kaithal and Sirsa, whereas for others in Jind. The difference between the OBC and others, however was marginal in Jind, Kaithal and Sirsa on 'not achieving MLL'. Certain interesting features were marked under 'achieving MLL' level. The others category constituted higher percentage in Hissar and Kaithal followed by OBC whereas in Sirsa it was OBC (31.90) followed by Others (26.30) and in Jind it was SC/ST (36.90) followed by Others (34.90). Similarly, the percentage of pupils approaching mastery was highest among 'others' categories in Hissar, Kaithal and Sirsa (11.30%, 10.50% and 4.70% respectively) followed by OBC (8.70%, 8.20% and 2.20% respectively) whereas OBC constituted highest percentage in Jind (10.90) followed by others (5.90). The percentage of SC/ST pupils, approaching mastery thus, constituted lowest percentage in all the four districts. The percentage of pupils of each caste category achieving mastery were negligible. In comparison to Jind, no SC/ST pupil in other three districts could achieve mastery. Similarly, no OBC pupil in Hissar, Jind and Kaithal and not 'others' category pupil in Hissar and Sirsa could achieve mastery in mathematics. (Table 3-2-17)

Table 3-2-17: Percentage of Class V Students Achieving Different Levels of Achievement in Mathematics (Castewise)

Level	Hissar			Jind			Kaithal			Sirsa		
	SC/ST	OBC	Others	SC/ST	OBC	Others	SC/ST	OBC	Others	SC/ST	OBC	Others
Zero Level	00.70	00.80	00.30	00.00	00.00	00.00	00.60	02.70	00.30	00.50	00.70	00.40
Not Achieving MLL	72.30	65.10	57.70	56.80	54.50	58.80	72.80	57.50	55.10	78.90	64.50	68.50
Achieving MLL	22.70	25.40	30.70	36.90	34.50	34.90	20.40	31.50	33.20	19.50	31.90	26.30
Approaching Mastery	04.70	08.70	11.30	05.40	10.90	05.90	06.20	08.20	10.50	01.10	02.20	04.70
Achieving Mastery	00.00	00.00	00.00	00.90	00.00	00.40	00.00	00.00	00.90	00.00	00.70	00.00

Achievement Level of Class 5 Students in Mathematics Not Achieving MLL(Castewise)



Correlation Between Mathematics and Language

A look at Table 3.2.18 revealed that mathematics and language performance of Class V students were positively related. This indicated that those who performed better in mathematics also did well in language tests. This was true for all districts. Both the dimensions of language test (word meaning and reading comprehension) were positively related. A significant positive correlation was also marked between mathematics and each area of word meaning and reading comprehension, except the reading comprehension of title/central idea (RCC). It seems that this particular area of RCC perhaps was not in accordance with the mental ability of Class V students.

Table 3.2.18: Correlation Between Mathematics and Language of Class V Students

Language Variables	HISSAR	JIND	KAITHAL	SIRSA
Word Meaning Total (TOT1)	0.36	0.25	0.34	0.17
Word Meaning Antonyms (WMA)	0.27	0.24	0.29	0.13**
Word Meaning Synonyms (WMS)	0.38	0.18	0.45	0.36
Reading Comprehension Total (TOT2)	0.55	0.38	0.45	0.36
Reading Comprehension of Meaning. In Words/Sentences (RCM)	0.22	0.9**	0.15	0.10**
Reading Comprehension of Factual Detail (RCF)	0.55	0.40	0.43	0.35
Reading Comprehension of Inferences (RCI)	0.47	0.30	0.39	0.29
Reading Comprehension of Title Central Idea (RCC)	0.3	0.1	0.8	0.7

** Significant at .01 Level

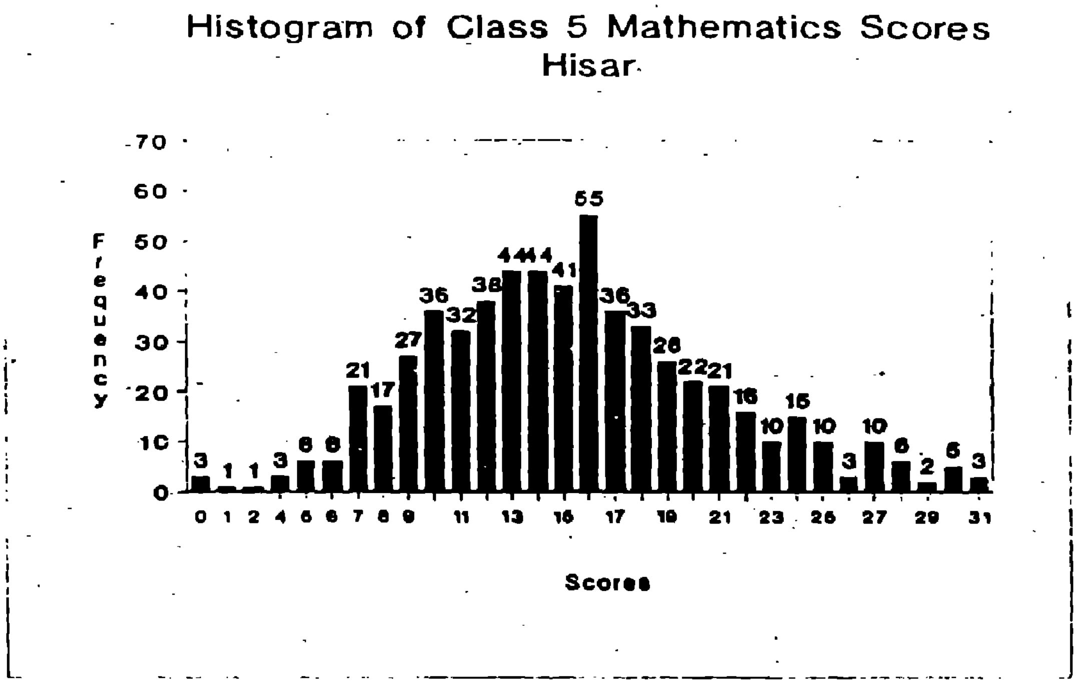
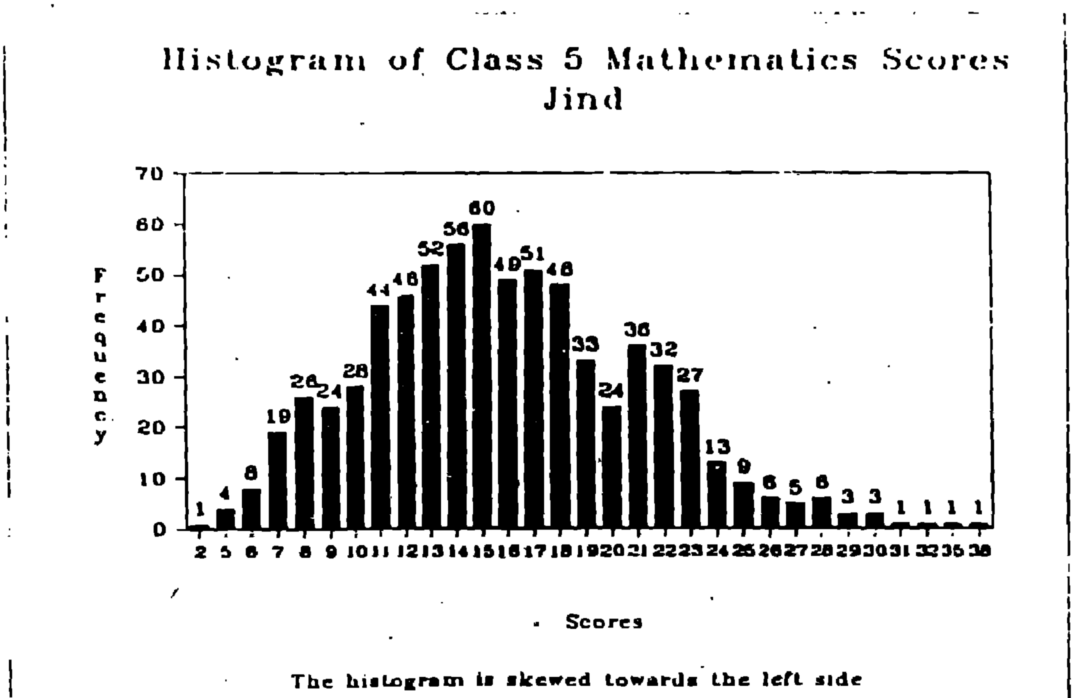
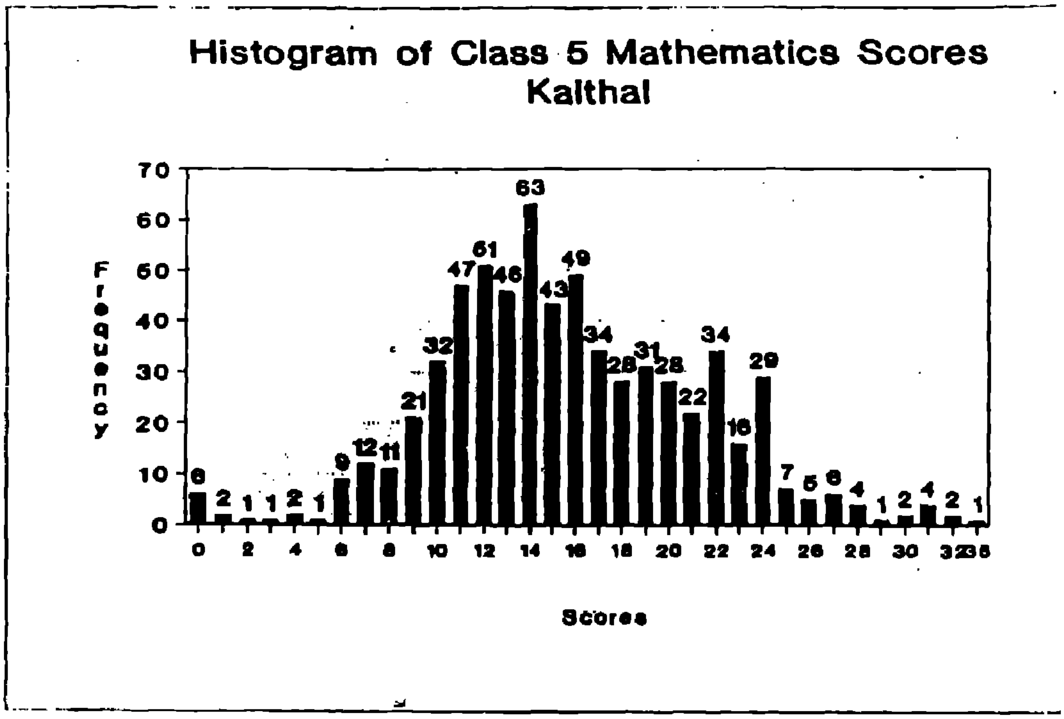


Fig. 29



The histogram is skewed towards the left side

Fig. 30


Histogram of Class 5 Mathematics Scores
Kalthal
Frequency
0
10
20
30
40
50
60
70
6
2
1
1
2
1
9
12
11
21
32
47
51
46
63
43
49
34
28
31
28
22
34
16
29
7
5
6
4
1
2
4
2
1
0
2
4
6
8
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12
14
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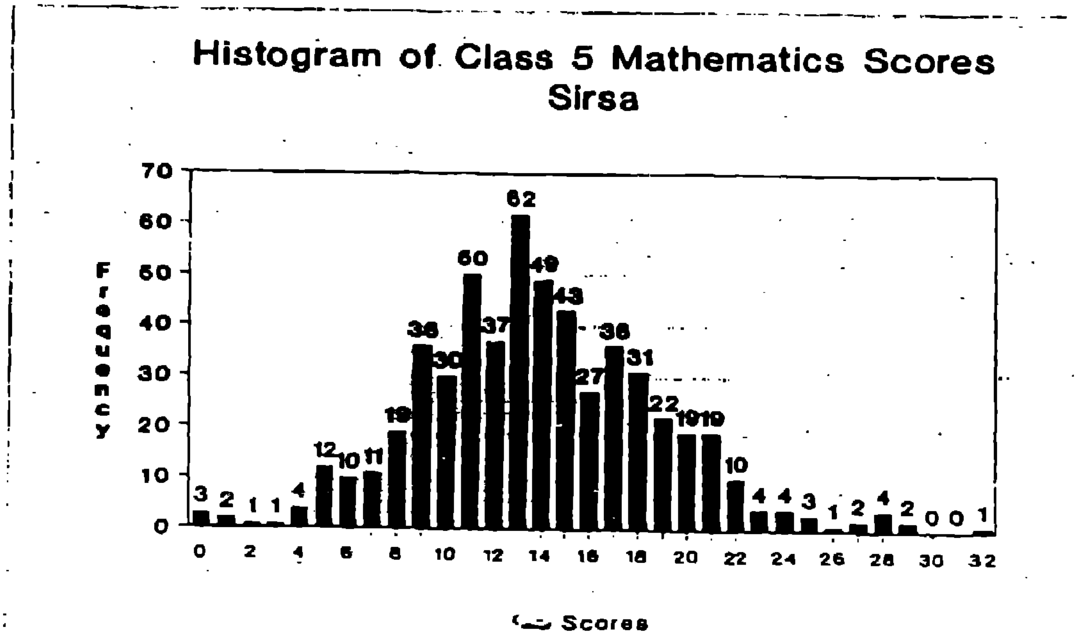
Scores

Fig. 31


Histogram of Class 5 Mathematics Scores
Sirsa
Frequency
0
10
20
30
40
50
60
70
3
2
1
1
4
12
10
11
19
36
30
50
37
62
49
43
27
36
31
22
19
19
10
4
4
3
1
2
4
2
0
0
1
0
2
4
6
8
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12
14
16
18
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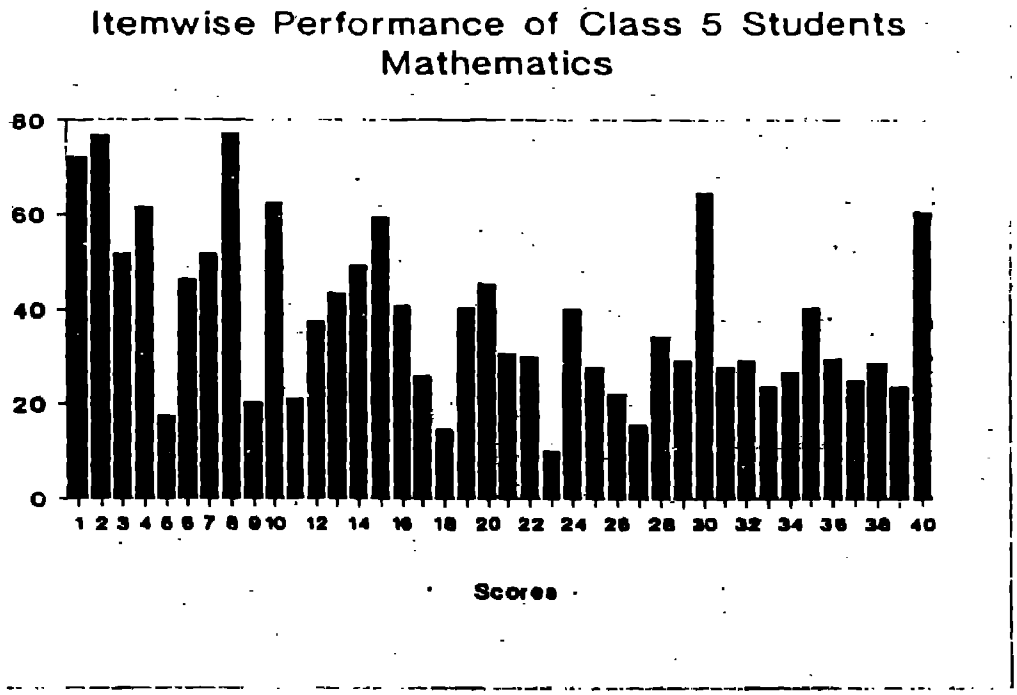
22
24
26
28
30
32
Scores

Fig. 32



Content area : Itemwise profile

Addition : 1,37
Subtraction :20,26
Addition + Subtraction :4,27
Multiplication : 15,16,23
Division : 8,9,35,38
Unitary Method :12
Multiples :7,10,11,28,29,39
Decimals : 2,13,30,32,36,40
Fractions : 9,17,22,31,33,34
Time : 14,21,24
Weights & Measures : 3,5,18
Geometry : 6,25.

Fig.28

Itemwise Analysis

The item analysis of the 40 items in the mathematics Class V test shows the variation in performance in the different mathematical operations. 18 items were answered correctly by about 40 percent students. In item number 1, 2, 4, 8, 10, 30 and 40 the students have performed much better as compared to other items. The most difficult areas were multiplication with zero, conversion of weights and measures and solving problems with descriptive statement.

Areas of Difficulty in Mathematics

The items which were done correctly by less than 40 per cent children fall in the following areas:

- Addition and Subtraction in the same item in statement form.
- Multiplication involving zero as one number
- Conversion of measures and weights, including volume.
- Fractions (all the six items were done correctly by less than 40 per cent children).
- Addition of standard hours.
- Finding place value of fractions in numbers involving decimals.
- Problems involving LCM.
- Items involving application of mathematical concept to problems relating to life.

SECTION III

Class II Students Characteristics and Achievement

In all there were 2642 students in the four districts who were administered the Class II tests. These students were selected randomly in classes having more than 20 students. The tests (mathematics and language) were administered orally. The responses were noted down by the investigators in the coding sheet.

Genderwise, Locationwise and Castewise Distribution

Table 3.3.1 below indicates that except in the district of Hissar, the girl students outnumbered the boys in all other districts and the overall percentage of girls in the Class II sample students was 54.9 per cent. The Table further indicates that more than 78-84 per cent of the sampled students were from rural areas and 53.70 per cent belonged to Others group castes. In the districts of Hissar and Sirsa the number of SC/ST students was comparatively higher than that in other two districts.

Table 3.3.1: Distribution of Class II Sample

Districts	Boys	Girls	Rural	Urban	SC/ST	Others
Hissar	335 (53.90)	286 (46.10)	488 (78.60)	133 (21.40)	278 (44.80)	343 (55.20)
Jind	253 (45.80)	299 (54.20)	466 (84.40)	86 (15.60)	165 (29.90)	387 (70.10)
Kaithal	294 (44.20)	371 (55.80)	566 (85.10)	99 (14.90)	199 (29.90)	466 (70.10)
Sirsa	214 (36.10)	379 (63.90)	493 (83.10)	100 (16.90)	275 (46.40)	318 (53.60)

Preschool Experience

It can be clearly seen from Table 3.3.2 below that the percentage of Class II students with preschool experience is fairly low in all the districts, as in none of the districts the number of such students exceed 15 per cent and in Kaithal it was reported a mere 6.5 per cent.

Table 3.3.2: Percentage of Class II Students Having Preschool Experience

Hissar	Jind	Kaithal	Sirsa
11.20	06.50	13.70	14.80

The percentage of class repeaters was found to be [illegible]w as the ma[illegible]m percentage of Class II repeaters was only 12.5 per cent in the district of [illegible]issar. This i[illegible]ably because of the non detention policy being incorrectlly practiced.

Table 3.3.3: Percentage of Class II Students Who Repeated [illegible]sses

Hissar	Jind	Kaithal	Sirsa
12.50	11.40	08.30	09.60

Age Distribution

In all the districts the majority of students were in the age group of [illegible]years. Fairly good number of students were overaged also, i.e. the age of such student[illegible] 9+. There is a possibility that about 50 per cent of these students were the class repea[illegible] and the rest could be the late admitters to the school. The percentage of underaged [illegible]w 6 years) students ranged from 4.0 per cent in Hissar to 10.6 per cent in Jind.

Table 3.3.4: Agewise Distribution of Class II Students

Age in years	Hissar	Jind	Kaithal	Sirsa
Below 6	04.90	06.70	10.60	07.10
7	43.40	43.40	50.20	39.40
8	33.50	33.60	26.60	35.90
9	11.50	11.10	09.50	14.10
10	03.70	02.90	02.60	02.90
11	01.60	01.60	00.30	00.70
12 and above	01.30	00.70	00.40	00.00

Achievement

The quality of teaching and learning in the early years of child's schooling set the foundation for the future years. In order to assess the achievement level of students in mathematics and language simple oral tests were administered in the month of November, 1993. These tests aimed at judging the level of attainments in the first class.

The test which was administered to Class II students in language consisted of 10 items each on letter reading and word reading. Table 3.3.5 shows the content of the language test. The term simple letters used in the table are the letters without any matra.

Table 3.3.5: Class II Language Test Profile

Area	Type of Letter	Items
Letter Reading	Simple letters	9
	Sanyukt(Complex)letters	1
	Total	10
Word Reading	1. Word beginning and ending without MATRA	2
	2. Word beginning without MATRA and ending with MATRA	1
	3. Word begining letter MATRA and ending without Matra	6
	4. Word beginning with MATRA and ending letter MATRA	1
	Total	10

The performance of Class II children in language test on letter and word reading items shows that about 50 per cent have been correctly attempted. There is no marked difference in performance in the four districts.

Achievement Level of Class 2 in Language (Genderwise)

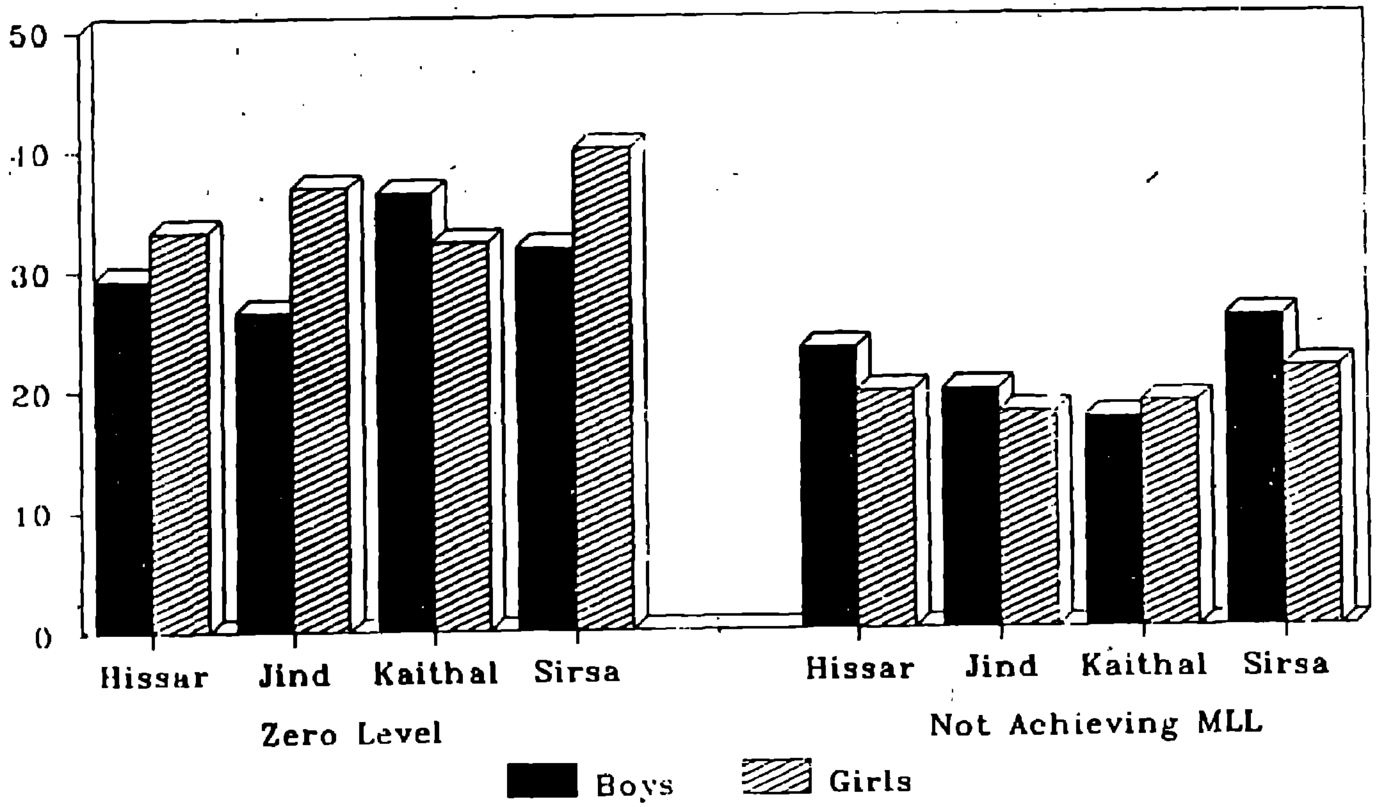


Fig. 33

Mean scores in letter reading in both boys and girls was almost identical in all the districts except in Kaithal where boys scored comparatively less marks. The table clearly indicates that reading words was found more difficult than reading letters as in none of the districts the students could read more than 50 per cent words except in the case of the boys in Jind. Only in the district of Kaithal mean score of girl students was slightly higher than that of boys. Sirsa reported the lowest mean achievement scores in word meaning among both boys and girls. Statistically the mean achievement was not significant except for letter reading and word meaning in Jind

Table 3.3.6: Mean Achievement of Class II Students in Language (Genderwise)

Language Area	District	Boys		Girls		Total		Significance
		Mean	SD	Mean	SD	Mean	SD	
Letter Reading	Hissar	06.27	03.33	06.17	03.47	06.23	03.40	No
	Jind	06.91	03.31	06.04	03.64	06.43	03.52	Yes
	Kaithal	05.84	03.74	06.37	03.48	06.14	03.60	No
	Sirsa	06.60	03.16	06.20	03.43	06.35	03.34	No
Word Reading	Hissar	04.48	03.95	04.29	03.86	04.39	03.92	No
	Jind	05.08	04.06	04.28	04.11	04.63	04.10	Yes
	Kaithal	04.43	04.22	04.59	03.98	04.52	04.08	No
	Sirsa	03.99	03.72	03.75	03.87	03.84	03.82	No

In letter reading there was not much difference in the performance of urban and rural students, although except in the district of Jind the urban students scored better than their rural counterparts. Urban students of Hissar reported the highest mean achievement score.

In case of word meaning the mean score was in favour of urban students in Hissar and Sirsa whereas it favoured rural students in other two districts. The performance in word reading was reported lowest from the urban students of Jind closely followed by the rural students of Sirsa. Statistically the mean achievement was not significant for Kaithal and Sirsa in letter reading and Kaithal in word reading

Table 3.3.7: Mean Achievement of Class II Students in Language (Locationwise)

Language Area	District	Rural		Urban		Significance
		Mean	SD	Mean	SD	
Letter Reading	Hissar	05.89	03.57	07.47	02.27	Yes
	Jind	06.62	03.37	05.33	04.12	Yes
	Kaithal	06.07	03.66	06.52	03.26	No
	Sirsa	06.24	03.34	06.88	03.29	No
Word Reading	Hissar	04.07	03.91	05.58	03.75	Yes
	Jind	04.82	04.08	03.58	04.12	Yes
	Kaithal	04.55	04.11	04.33	03.92	No
	Sirsa	03.59	03.74	05.07	03.95	Yes

Table 3.3.8: Mean Achievement of Class II Students in Language (Castewise)

Language Area	District	SC/ST		Others		Significance
		Mean	SD	Mean	SD	
Letter Reading	Hissar	06.30	03.33	06.17	03.46	No
	Jind	05.86	03.77	06.67	03.38	Yes
	Kaithal	05.67	03.83	06.34	03.49	Yes
	Sirsa	06.29	03.33	06.39	03.34	No
Word Reading	Hissar	04.08	03.78	04.65	04.02	No
	Jind	04.17	04.19	04.83	04.06	No
	Kaithal	04.02	04.11	04.73	04.06	No
	Sirsa	03.56	03.70	04.08	03.90	No

No major significance in the mean achievement was noticed among different caste group students, although the category of students belonging to the 'others' group performed slightly better than students belonging to SC/ST group in both letter reading and word reading. The only exception being Hissar where mean scores of SC/ST students was higher in letter reading test.

Word Reading - Content Area Analysis

In order to assess the competencies according to the nature of content of items given in the ten word reading items a detailed analysis was undertaken.

Table 3.3.9: Language Test: Content Analysis

	AREA	ITEMS
A	Letter Reading	
	1. Simple letter	10 items
B.	Word Reading	
	1. Word begining and ending with letters without 'Matra'	2 items
	2. Words begining with letter with' matra' ending with letter with matra.	1 item
	3. Word begining with "matra" and ending with letter without 'Matra'	6 items
	4. Word Begining with "matra" and ending with matra	1 items

Table 3.3.10: Mean Achievement of Class II Students on Words Begining and Ending with Letters without Matra

District		B	G	R	U	SC/ST	Others
Hissar	Mean	04.48	04.29	04.07	05.58	04.08	04.65
	SD	03.95	03.88	03.90	03.75	03.78	04.02
Jind	Mean	05.08	04.28	04.82	03.58	04.17	04.83
	SD	04.06	04.11	04.08	04.12	04.19	04.06
Kaithal	Mean	04.43	04.59	04.55	04.32	04.02	04.72
	SD	04.22	03.98	04.11	03.92	04.11	04.05
Sirsa	Mean	03.99	03.74	03.58	05.07	03.55	04.07
	SD	03.72	03.87	03.74	03.95	03.70	03.90

The Table 3.3.10 above shows that the performance in the two words starting and ending with simple letters boys performed better than girls in all the districts except in Kaithal. The children in urban areas of Hissar and Sirsa have performed better than their counterparts in the rural areas. The reverse trend is seen in Jind and Kaithal. Children belonging to SC/ST have scored lower than others in all the districts.

Table 3.3.11: Mean Achievement of Class II Students on Words Begining with Letter and Ending with Matra

District		B	G	R	U	SC/ST	Others	Total
Hissar	Mean	00.43	00.38	00.38	00.53	00.39	00.42	00.41
	SD	00.50	00.49	00.49	00.50	00.49	00.49	00.49
Jind	Mean	00.54	00.44	00.50	00.37	00.44	00.51	00.48
	SD	00.50	00.50	00.50	00.49	00.50	00.50	00.50
Kaithal	Mean	00.41	00.39	00.38	00.50	00.36	00.43	00.40
	SD	00.49	00.49	00.49	00.50	00.48	00.50	00.49
Sirsa	Mean	00.45	00.45	00.46	00.40	00.43	00.46	00.45
	SD	00.50	00.50	00.50	00.49	00.50	00.50	00.50

In case of the performance of children on the words starting and ending with a matra, boys and girls have shown an exactly similar performance in Kaithal, whereas boys have scored over the girls in Hissar, Jind and Sirsa. The rural sample has done better than urban in Jind and Kaithal. However, this is not the case in Hissar and Sirsa. Here the urban sample has done better than the rural. The SC/ST have performed lower than others in all the districts.

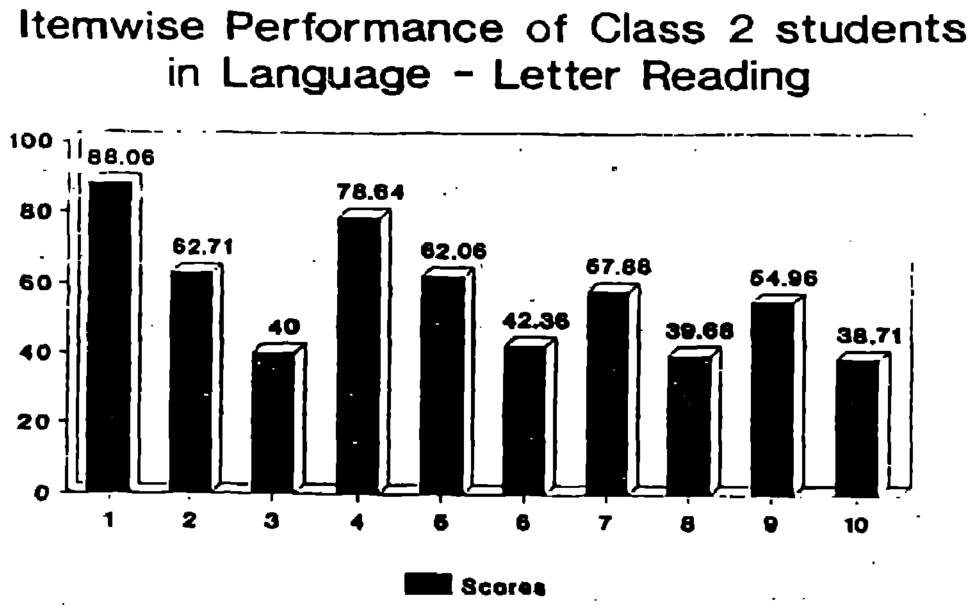
Table 3.3.12: Mean Achievement of Class II Students on Word Beginning with Matra and Ending with Letter Without Matra

District		B	G	R	U	SC/ST	Others	Total
Hissar	Mean	04.48	04.29	04.07	05.57	04.08	04.65	04.39
	SD	03.95	03.88	03.90	03.75	03.78	04.02	03.92
Jind	Mean	05.08	04.28	04.81	03.58	04.17	04.83	04.63
	SD	04.06	04.11	04.07	04.12	04.19	04.06	04.10
Kaithal	Mean	04.43	04.59	04.55	04.33	04.02	04.72	04.51
	SD	04.42	03.98	04.11	03.92	04.11	04.06	04.08
Sirsa	Mean	02.14	02.04	01.92	02.81	01.88	02.24	02.07
	SD	02.30	02.37	02.28	02.53	02.29	02.38	02.35

For the six items starting with matra and ending with simple letter boys have done better than girls in the districts of Hissar, Jind and Sirsa. The total performance of the six words shows a similar performance in the districts of Hissar, Jind and Kaithal. The performance is lower in the district of Sirsa. In Kaithal girls have done slightly better. When comparing the performance of rural and urban children it is evident that rural children have done better in Jind and Kaithal. The urban children have performed better than rural children in Hissar and Sirsa. The SC/ST children have done lower than the other children in all the districts.

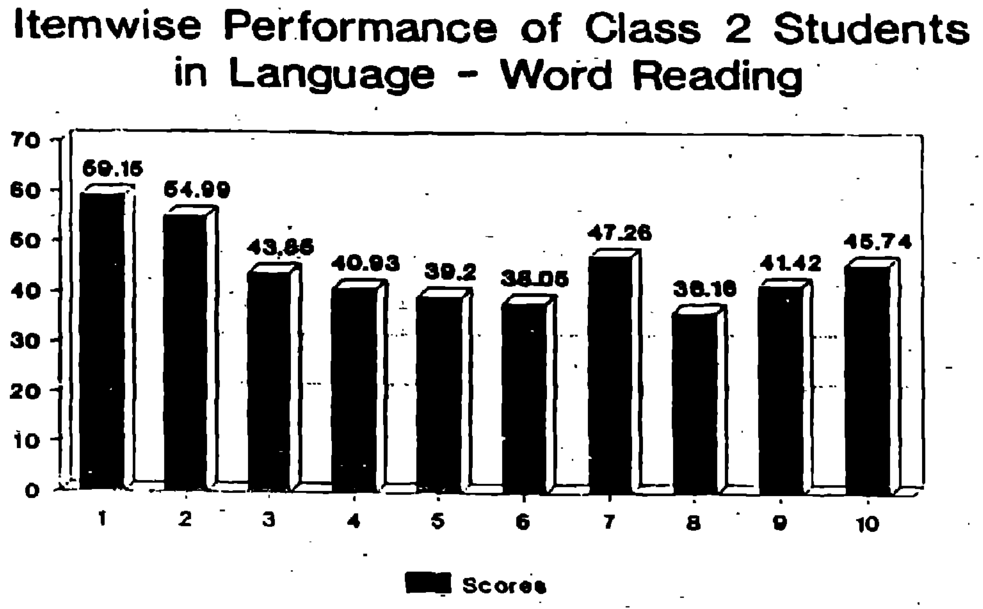
Table 3-3-13: Mean Achievement of Class II Students on Words Begining with Matra and Ending With Matra

District		B	G	R	U	SC/ST	Others	Total
Hissar	Mean	00.44	00.38	00.38	00.53	00.42	00.40	00.41
	SD	00.50	00.49	00.49	00.50	00.50	00.49	00.49
Jind	Mean	00.44	00.31	00.36	00.38	00.34	00.38	00.37
	SD	00.50	00.46	00.48	00.49	00.47	00.49	00.48
Kaithal	Mean	00.44	00.41	00.43	00.40	00.38	00.44	00.42
	SD	00.50	00.49	00.50	00.49	00.49	00.50	00.50
Sirsa	Mean	00.44	00.32	00.35	00.47	00.33	00.40	00.37
	SD	00.50	00.47	00.48	00.50	00.47	00.49	00.48



Itemwise Performance of Class 2 students in Language - Letter Reading

Fig. 34



Itemwise Performance of Class 2 Students in Language - Word Reading

Fig. 35

In the three words starting and ending with matra the total performance is same in the districts of Jind and Sirsa. It is however lower than Hissar and Kaithal, where also there is a marginal difference. The boys have done better than girls in all the districts. Comparing the performance of rural and urban sample the performance in Kaithal district is higher in rural sample. However, in Hissar, Jind and Sirsa the urban samples performance is better. The SC/ST have performed lower in all the four districts.

Itemwise Analysis

A. Letter Reading

The item analysis of the ten letters responded orally help to point. out four items in which less than 40 per cent students gave correct responses.

B. Word Reading

The item analysis of the ten words shows that words begining and ending with matra pose a specific problem.

The areas of difficulty in literacy were:

1. Letter ण, ङ and औ

2. (a) Words begining with matra
   (b) Words begining and ending with matra

Although the genderwise mean achievement score, as reported earlier could be called as satisfactory performance but still a sizable number of pupils could not read even a single letter. In all districts except Kaithal there were more girl students in this category than boys. The maximum (40%) reported from Sirsa. Apart from these 18 to 23 per cent could not achieve MLL in letter reading. The percentage of students who had achieved mastery level ranged from 18.7 per cent in Sirsa to 30.2 per cent in Jind.

In comparison to the letter reading less percentage of students scored zero in word reading test. Surprisingly percentage of students who achieved masterly level in word meaning were more than those achieving in letter reading, with boys of Jind topping this list.

Table 3.3.14: Percentage of Class II Students Achieving Different Levles of Achievement in Language (Locationwise)

Language Area	Level	Hisar			Jind			Kaithal			Sirsa		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Letter Reading	Zero Level	29.30	33.20	31.10	26.50	36.90	32.30	36.40	32.30	34.10	31.80	40.10	37.10
	Not Achieving MLL	23.30	19.60	21.60	19.70	17.80	18.60	17.20	18.50	17.90	25.70	21.40	22.90
	Achieving MLL	09.60	10.50	10.00	08.80	06.70	07.70	06.30	11.40	09.10	08.40	08.40	08.40
	Approaching Mastery	11.90	14.00	12.90	09.90	12.10	11.10	10.90	11.40	11.20	16.40	10.80	12.80
	Achieving Mastery	26.00	22.70	24.50	35.00	26.40	30.20	29.60	26.30	27.70	17.80	19.30	18.70
Word Reading	Zero Level	14.00	16.40	15.10	12.20	16.70	14.70	19.80	14.80	17.00	10.30	15.80	13.80
	Not Achieving MLL	11.60	11.20	11.40	09.90	16.20	13.40	15.00	12.80	13.80	11.70	10.00	10.60
	Achieving MLL	13.70	10.80	12.40	07.50	09.20	08.40	05.10	09.10	07.20	10.70	12.40	11.80
	Approaching Mastery	26.60	28.30	27.40	21.10	17.80	19.20	20.80	20.20	20.50	31.80	28.50	29.70
	Achieving Mastery	34.00	33.20	33.70	49.30	40.20	44.20	39.70	43.10	41.50	35.50	33.20	34.10

Table 3.3.15: Percentage of Class II Students Achieving Different Levels of Achievement in Language (Locationwise)

Language Area	Level	Hissar		Jind		Kaithal		Sirsa	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Letter Reading	Zero Level	18.40	03.00	11.80	31.30	18.50	09.30	14.40	11.00
	Not Achieving MLL	12.70	06.80	14.50	07.10	13.30	16.30	10.80	10.00
	Achieving MLL	12.90	10.50	08.50	08.10	07.30	07.00	12.60	08.00
	Approaching Mastery	24.00	39.80	20.10	14.10	19.50	25.60	30.20	27.00
	Achieving Mastery	32.00	39.80	45.10	39.40	41.40	41.90	32.00	44.00
Word Reading	Zero Level	35.50	15.00	29.70	47.50	34.10	33.70	39.40	26.00
	Not Achieving MLL	20.70	24.80	19.10	16.20	17.40	20.90	23.70	19.00
	Achieving MLL	10.00	09.80	08.00	06.10	09.20	08.10	08.30	09.00
	Approaching Mastery	11.90	16.50	12.00	06.10	10.50	15.10	12.20	16.00
	Achieving Mastery	21.90	33.80	31.30	24.20	28.80	22.10	16.40	30.00

In all the districts except Jind the percentage of students who could not read even a single letter were more in rural areas. The maximum percentage (31.3%) of students scoring zero were reported from urban areas of Jind. A sizable number of pupils achieved mastery in letter reading, with urban areas reported higher percentage of such students, except in the district of Jind.

Rural areas of all the districts except Jind reported a large percentage of students who had scored zero in word reading. While in the district of Jind 41.4 per cent of the urban students were unable to read even a single word. In Hissar and Sirsa more urban students achieved masterly level than their rural counterparts whereas it was opposite in the case of Jind and Kaithal.

Table 3.3.16: Percentage of Class II Students Achieving Different Levels of Achievement on Language (Castewise)

Langauge Area	Level	Hissar		Jind		Kaithal		Sirsa	
		SC/S	Others	SC/S	Others	SC/S	Others	SC/S	Others
Letter Reading	Zero Level	14.70	15.50	20.10	12.40	23.60	14.20	14.20	13.50
	Not Achieving MLL	10.40	12.20	16.10	12.20	12.10	14.50	10.50	10.70
	Achieving MLL	11.90	12.80	08.00	08.60	09.10	06.50	13.80	10.10
	Approaching Mastery	30.20	25.10	14.10	21.50	15.80	22.50	28.00	31.10
	Achieving Mastery	32.70	34.40	41.70	45.30	39.40	42.40	33.50	34.60
Word Reading	Zero Level	31.30	30.90	39.20	29.40	41.80	30.70	39.30	35.20
	Not Achieving MLL	24.80	19.00	17.60	19.10	14.50	19.40	23.30	22.60
	Achieving MLL	10.40	09.60	07.00	07.90	10.30	08.50	08.70	08.20
	Approaching Mastery	12.90	12.80	08.50	12.20	09.70	11.90	12.70	12.90
	Achieving Mastery	20.50	27.70	27.60	31.30	23.60	29.50	16.00	21.10

The castewise data indicates that other category pupils faired well than the SC/ST students at almost all levels of achievement in both letter reading and word reading. The data also reveals that irrespective of caste more students achieved mastery level in letter reading than in word reading.

Table 3.3.17: Mathematics Test Profile

Area	Type of numbers	Items
Small and Large Numbers	1. Pairs of one digit numbers	1
	2. Pairs of two digit numbers	4
	3. Pairs of two digit and one digit numbers	1
Addition	1. Addition of two one digit numbers	2
	2. Addition of one digit number to zero	1
	3. Addition of zero to one digit number	1
Subtraction	1. Involving two one digit numbers	3
	2. Involving same one digit numbers	1
	Total	14

The numeracy test consisted of 14 items, out of which six were on number recognition and four each on addition and subtraction.

Table 3.3.18: Mean Achievement of Class II Students in Mathematics (Genderwise)

Area	District	Boys		Girls		Total		Significance
		Mean	SD	Mean	SD	Mean	SD	
Number Recognition	Hissar	04.07	01.82	03.63	01.92	03.87	01.88	Yes
	Jind	02.02	01.00	01.83	01.00	01.91	01.00	No
	Kaithal	03.98	01.80	03.89	01.72	03.94	01.76	No
	Sirsa	03.92	01.70	03.39	01.96	03.58	01.88	No
Addition and Subtraction	Hissar	03.85	03.19	04.31	03.14	04.10	03.17	Yes
	Jind	04.13	03.23	03.16	03.08	03.59	03.18	No
	Kaithal	04.46	03.18	04.08	03.15	04.27	03.17	No
	Sirsa	01.99	01.70	01.54	01.62	01.70	01.66	No

The Table 3.3.18 clearly indicates that there is insignificant difference in the mean achievement of boys and girls in the mathematics test. In number recognition the average marks scored by the students was above 50 per cent in all the districts except Jind which reported an average score 2 out of 6 and 1 out of 6 in boys and girls, respectively.

In addition and subtraction the mean achievement score in Sirsa was very low (1 out of 8) among both boy and girl students whereas in other districts the average was 3-4.

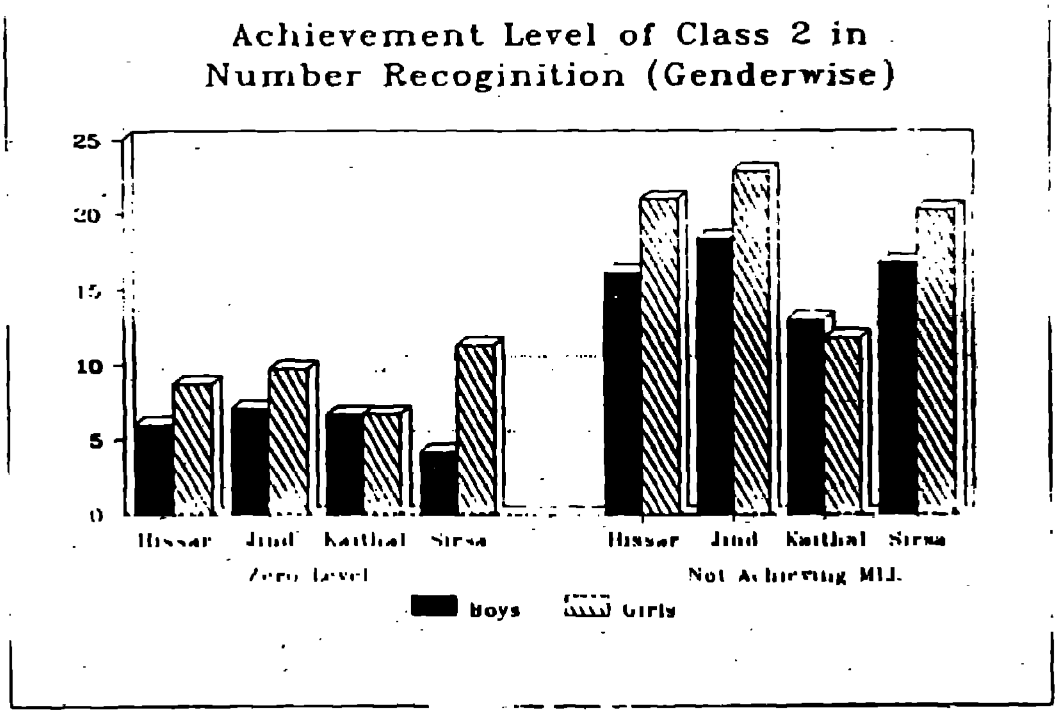

Achievement Level of Class 2 in Number Recoginition (Genderwise)

Fig. 36

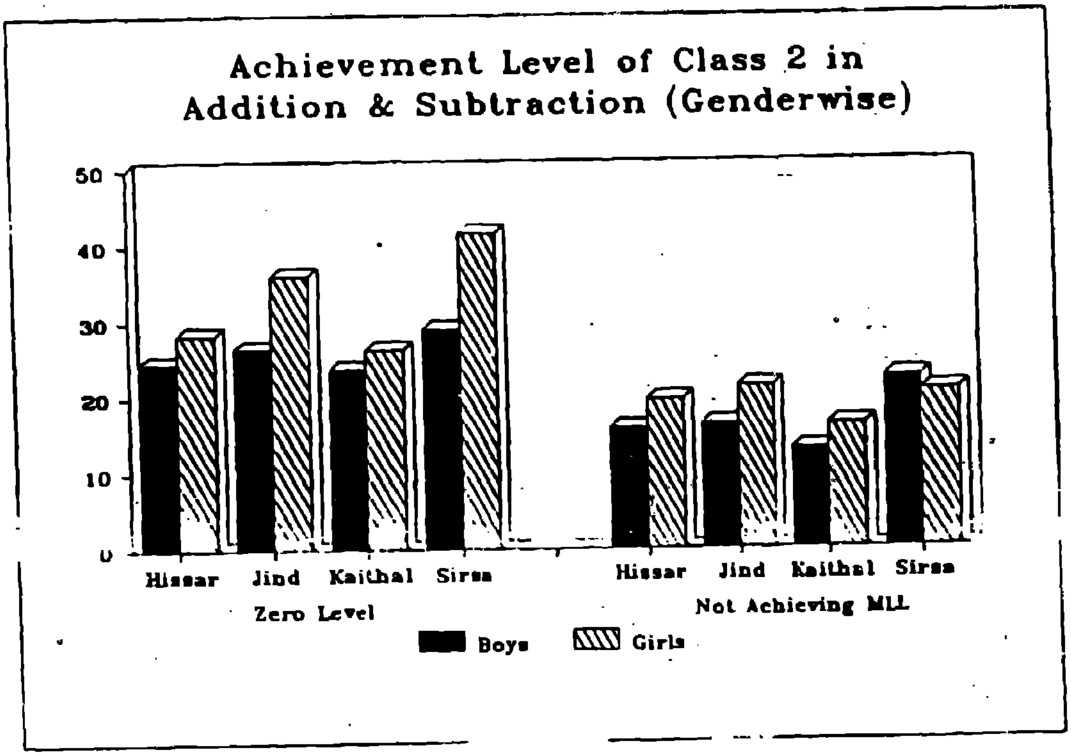

Achievement Level of Class 2 in Addition & Subtraction (Genderwise)

Fig. 37

The Class II students performed better in number recognition test than in addition and subtraction, as the percentage of students who scored zero was very low in number recognition test but more students achieved mastery in addition and subtraction test. More boys achieved mastery level than the girls students in both the tests.

Table 3.3.21: Percentage of Class II Students Achieving Different Levels of Achievement in Mathematics (Genderwise)

Area	Level	Hissar			Jind			Kaithal			Sirsa		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Number Recognisation	Zero Level	06.00	08.70	07.20	07.10	09.70	08.60	06.70	06.70	06.70	04.20	11.30	08.80
	Not Achieving MLL	16.10	21.00	18.40	18.40	22.90	20.90	13.00	11.80	12.30	16.80	20.30	19.10
	Achieving MLL	28.10	31.50	29.60	29.30	32.30	31.00	37.20	42.80	40.00	37.90	34.30	35.60
	Approach-ing Mastery	20.00	16.80	18.50	10.90	14.80	13.10	15.40	16.20	15.80	18.70	14.80	16.20
	Achieving Mastery	29.90	22.00	26.20	34.40	20.20	26.50	28.10	22.60	25.20	22.40	19.30	20.40
Addition and Substraction	Zero Level	24.50	28.30	26.20	26.50	36.10	31.90	23.70	26.30	25.00	29.00	41.70	37.10
	Not Achieving MLL	15.80	19.60	17.60	16.30	21.30	19.10	13.00	16.20	14.70	22.40	20.60	21.20
	Achieving MLL	12.80	11.50	12.20	15.00	12.70	13.70	15.80	16.50	16.10	15.90	13.20	14.20
	Approach-ing Mastery	13.40	08.70	11.30	08.50	09.70	09.20	10.30	09.40	09.80	07.50	05.50	06.20
	Achieving Mastery	33.40	31..8	32.70	33.70	20.20	26.20	37.60	31.60	34.80	25.20	19.00	21.20

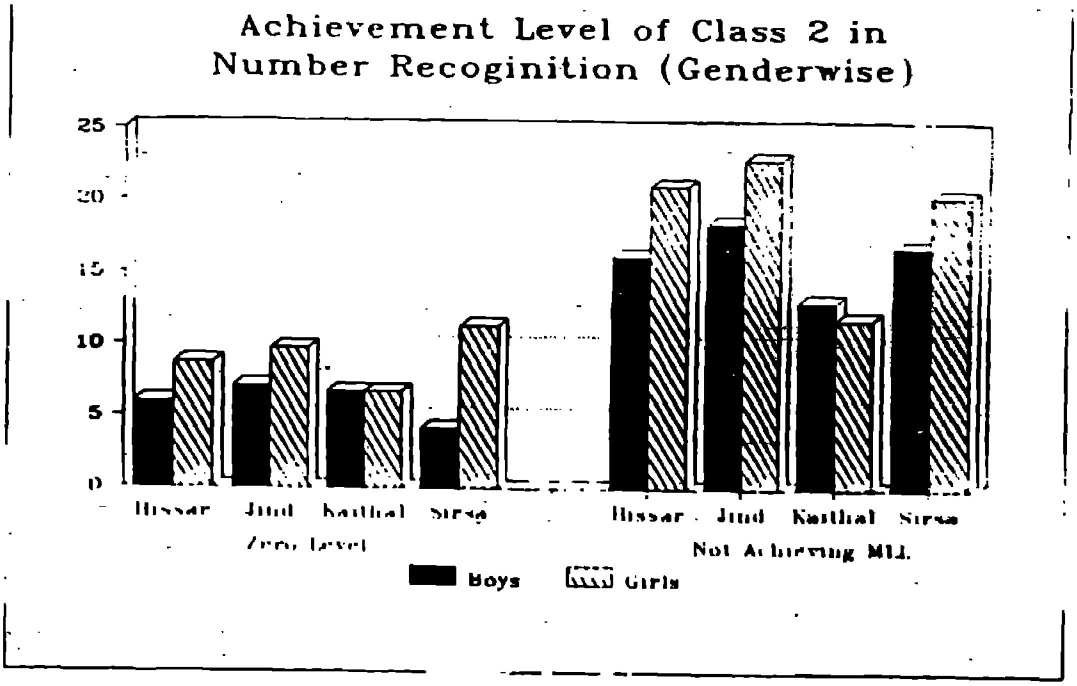

Achievement Level of Class 2 in Number Recoginition (Genderwise)

Fig. 36

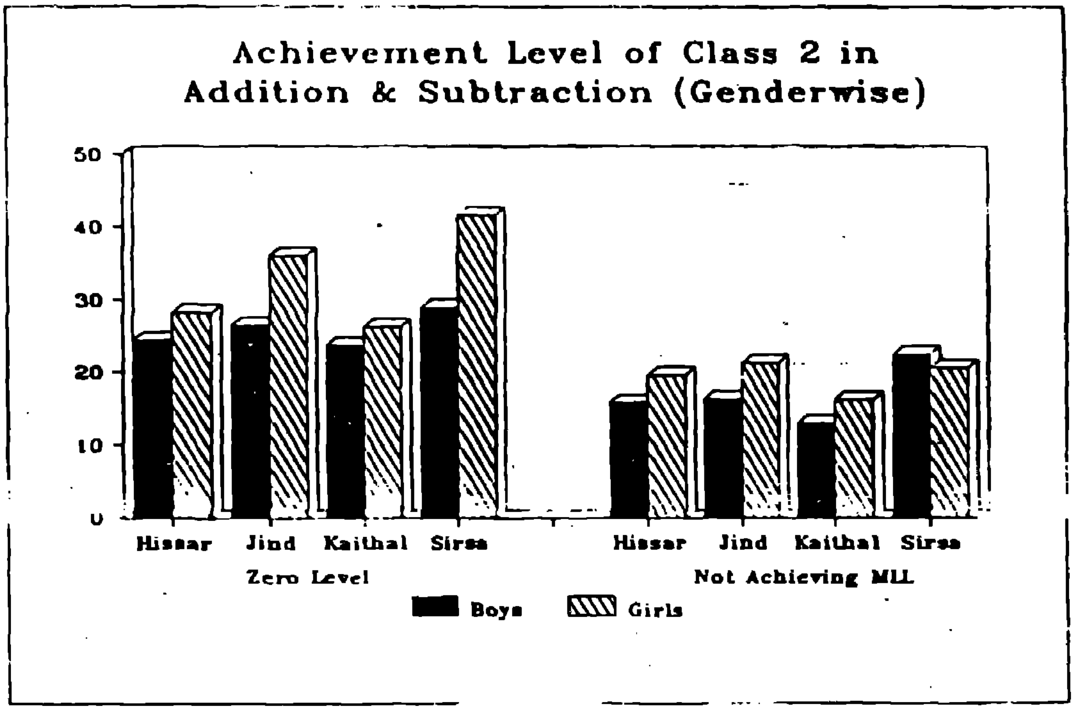

Achievement Level of Class 2 in Addition & Subtraction (Genderwise)

Fig. 37

- The Class II students performed better in number recognition test than in addition and subtraction, as the percentage of students who scored zero was very low in number recognition test but more students achieved mastery in addition and subtraction test. More boys achieved mastery level than the girls students in both the tests.

Table 3.3.21: Percentage of Class II Students Achieving Different Levels of Achievement in Mathematics (Genderwise)

Area	Level	Hissar			Jind			Kaithal			Sirsa		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Number Recognisation	Zero Level	06.00	08.70	07.20	07.10	09.70	08.60	06.70	06.70	06.70	04.20	11.30	08.80
	Not Achieving MLL	16.10	21.00	18.40	18.40	22.90	20.90	13.00	11.80	12.30	16.80	20.30	19.10
	Achieving MLL	28.10	31.50	29.60	29.30	32.30	31.00	37.20	42.80	40.00	37.90	34.30	35.60
	Approaching Mastery	20.00	16.80	18.50	10.90	14.80	13.10	15.40	16.20	15.80	18.70	14.80	16.20
	Achieving Mastery	29.90	22.00	26.20	34.40	20.20	26.50	28.10	22.60	25.20	22.40	19.30	20.40
Addition and Substraction	Zero Level	24.50	28.30	26.20	26.50	36.10	31.90	23.70	26.30	25.00	29.00	41.70	37.10
	Not Achieving MLL	15.80	19.60	17.60	16.30	21.30	19.10	13.00	16.20	14.70	22.40	20.60	21.20
	Achieving MLL	12.80	11.50	12.20	15.00	12.70	13.70	15.80	16.50	16.10	15.90	13.20	14.20
	Approaching Mastery	13.40	08.70	11.30	08.50	09.70	09.20	10.30	09.40	09.80	07.50	05.50	06.20
	Achieving Mastery	33.40	31.8	32.70	33.70	20.20	26.20	37.60	31.60	34.80	25.20	19.00	21.20

Areas of Difficulty in Numeracy

The Class II students encountered specific problems in numeracy which are as follows.

1. Identification of level number in a double digit numbers
2. Adding zero to a numbr and adding a number to zero
3. Subtraction of the same number from itself
4. The concept of zero

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4. The concept of zero

SECTION IV

The Dropouts

During the research the field investigators were able to meet 329 dropouts which is about half of the targeted number the study intended to cover. These dropouts were interviewed in all the four sampled districts. The identification posed to be a difficult task as it was evident right from the pilot testing stage of the study that schools did not monitor dropouts and were thus unable to provide much useful information. The investigators faced an uphill task in identifying the dropouts as often they were not available at the given addresses. This was because either they were away at work all day or were no longer staying there.

Genderwise Distribution

Gender distribution in the sample of dropouts confirms that more girl dropout at the primary school stage than boys. (Table 3.4.1). However, the enrolment shows more girls are in classes one and two in all the districts except Sirsa. The number gradually decreases in the subsequent primary classes. The classwise repetition emerged as one of the most important factors for student dropouts from schools (Tables 3.4.14 and 3.4.15)

Table 3.4.1: Percentage Distribution of Dropouts (Genderwise)

District	Boys	Girls
Hissar	43.7	56.3
Jind	30.0	69.7
Kaithal	35.7	64.3
Sirsa	40.6	59.4

Areawise Distribution

When looking at areawise distribution of dropouts, it is seen that more students from rural schools dropped out than from urban schools. This should however be considered with caution because it is more difficult to trace dropout students in urban areas than in villages.

Table 3.4.2: Percentage Distribution of Dropouts (Locationwise)

District	Rural	Urban
Hissar	76.5	23.5
Jind	95.5	4.5
Kaithal	85.7	14.3
Sirsa	68.7	31.3

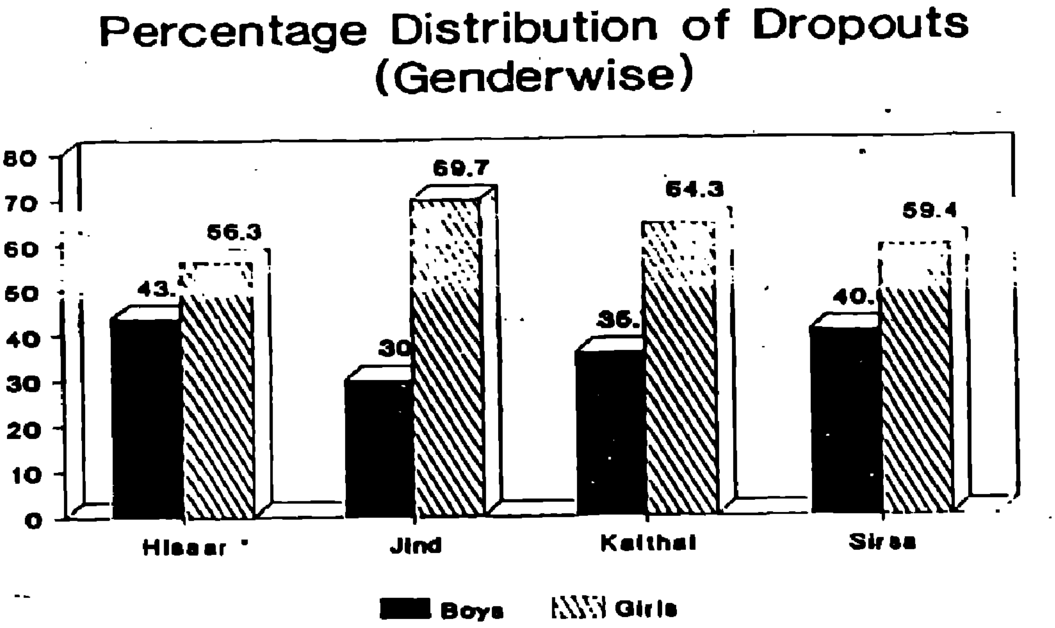

Percentage Distribution of Dropouts (Genderwise)

Fig. 38

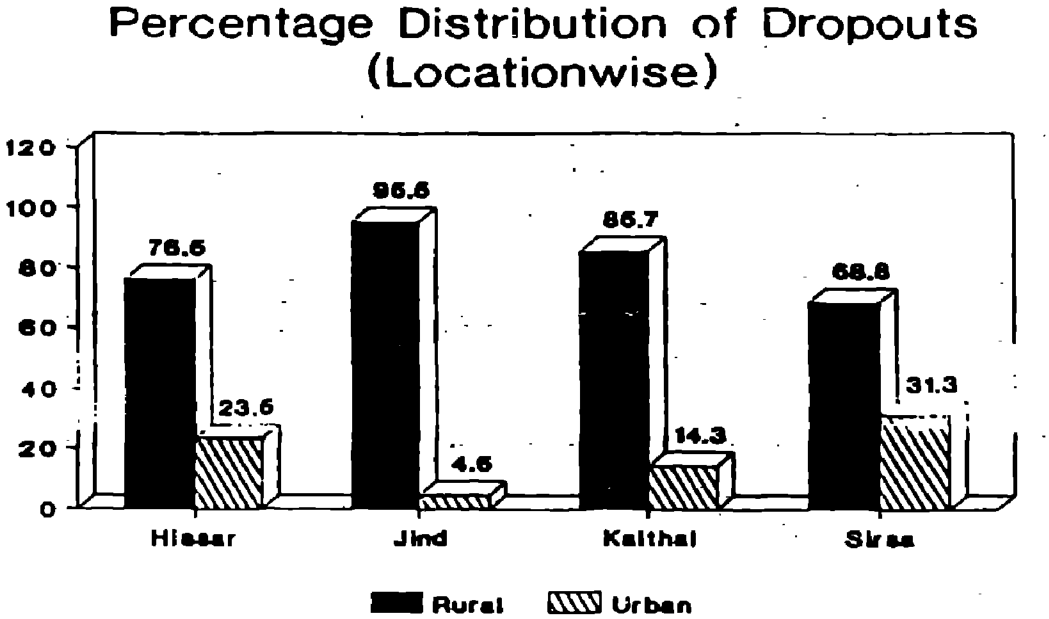

Percentage Distribution of Dropouts (Locationwise)

Fig. 39

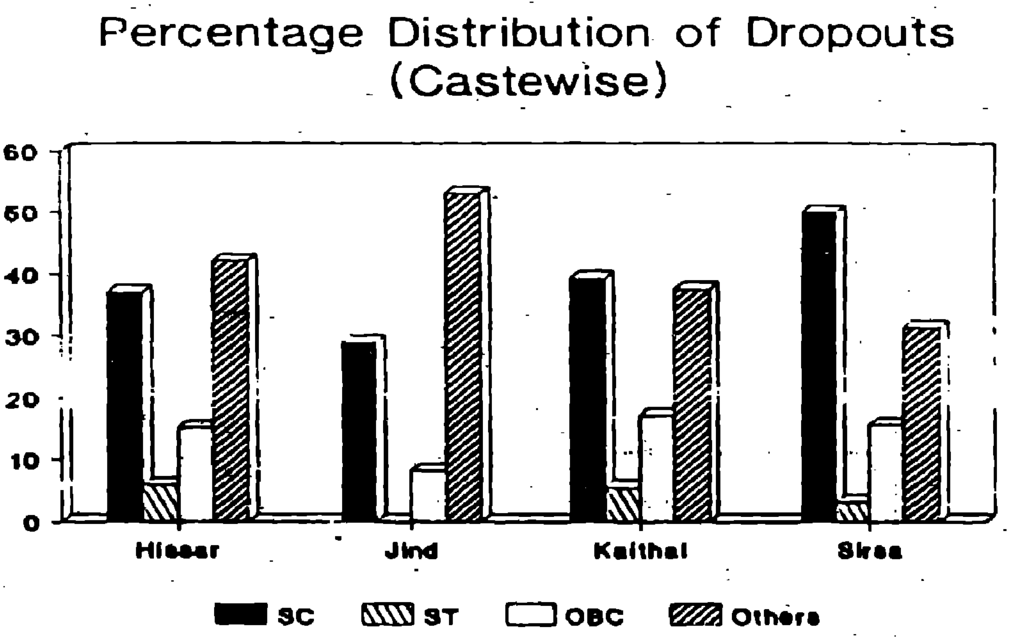

Percentage Distribution of Dropouts
(Castewise)
60
50
40
30
20
10
0
Hissar
Jind
Kaithal
Sirsa
SC
ST
OBC
Others

Fig. 40

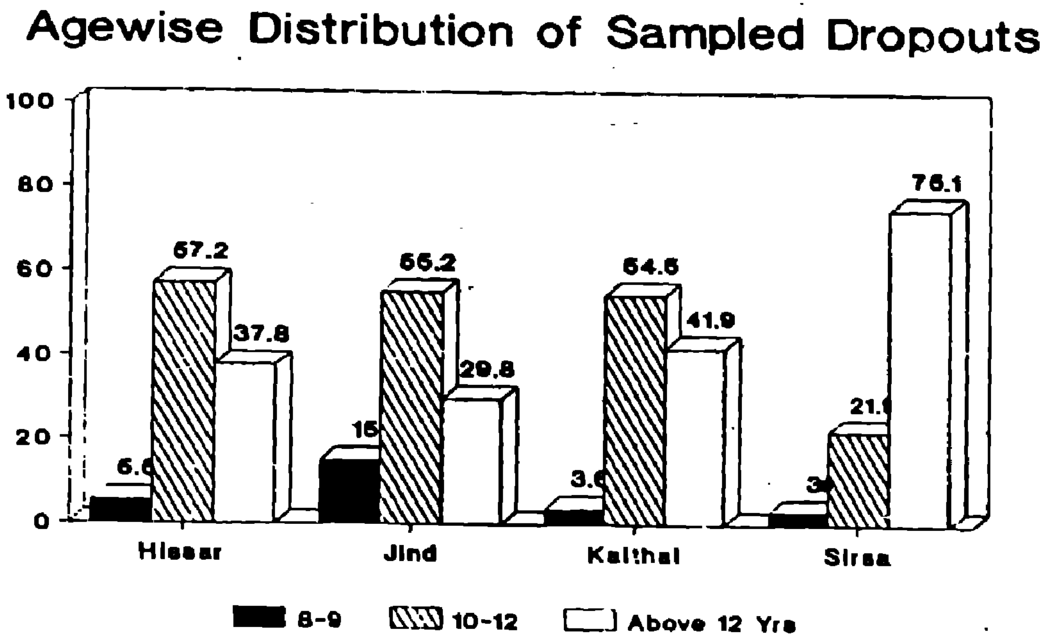

Agewise Distribution of Sampled Dropouts
100
80
60
40
20
0
6.
57.2
37.8
15
55.2
29.8
3.
54.5
41.9
3
21.
75.1
Hissar
Jind
Kaithal
Sirsa
8-9
10-12
Above 12 Yrs

Fig. 41

Castewise Distribution

The dropout children were asked about their caste during the interview by investigators. The intention was to see if the effect of their disadvantageous status in the society was felt on their education. This analysis shows that more students belonging to SC dropped out in Kaithal and Sirsa as compared to the ST/OBC/Others. A reverse trend was the case emerging in Hissar and Jind.

Table 3.4.3: Percentage Distribution of Dropouts (Castewise)

District	SC	ST	OBC	Others
Hissar	37.0	5.9	15.1	42.0
Jind	28.8	0.0	18.2	53.0
Kaithal	39.3	5.4	17.9	37.5
Sirsa	50.0	3.1	15.6	31.3

Agewise Distribution

The age distribution of sampled dropouts shows that almost three-fourth of the identified sample were far above the average age for Class V in the three districts of Hissar, Sirsa and Kaithal. In Jind, almost half were above age. Table 3.4.4 below indicates that there was no child in the age group (8-9) in Sirsa. The overage in the sample is a pointer towards two possibilities. One could be the late Begining of formal schooling, while the other reason could be attributed to failure in the early classes. The survey suggests the later to be the contributing factor. This class repetition can be seen from Tables 3.4.13 and 3.4.14.

Table 3.4.4: Agewise Distribution of Sampled Dropouts

	Hissar	Jind	Kaithal	Sirsa
8 -9	05.00	15.00	03.60	03.00
10 – 12 years	57.20	55.20	54.50	21.90
Above 12 years	37.80	29.80	41.90	75.10

Head of the Family

In accordance with the family structure in our country the head of the family is the father. The analysis of data reveals that this is also the case in all the districts of the sampled dropouts.

Table 3.4.5: Head of the Family of Dropouts

	Hissar	Jind	Kaithal	Sirsa
Father	89.10	83.30	86.60	90.60
Mother	05.90	01.50	07.10	06.30
Other	04.20	15.20	06.30	03.10

Occupational Status of Parents

A look at the occupational status of fathers of dropouts reveals that around 60 per cent fathers are involved in agricultural work with the percentage being higher in rural areas, as compared to urban areas. There is no marked difference visible in castewise comparison. (Table 3.4.6).

Table 3.4.6: Occupational status of the fathers of Dropouts

District		Rural	Urban	Total
Hissar	Agricultural	64.30	28.60	56.320
	Non-Agricultural	35.70	71.40	43.70
Jind	Agricultural	60.30	100.00	61.10
	Non-Agricultural	39.70	00.00	38.90
Kaithal	Agricultural	68.80	06.30	59.90
	Non-Agricultural	31.20	92.70	40.10
Sirsa	Agricultural	51.80	30.00	65.60
	Non-Agricultural	48.20	70.00	34.40

Like the tradition in our country most mothers of the dropout children are involved in household work. A small percentage however, is involved in agricultural work also.

Table 3.4.7: Occupational Status of the mothers of Dropouts

District	Occupation	Rural	Urban	Total
Hissar	Household	82.40	75.00	80.70
	Agricultural	11.00	14.30	11.70
	Skilled	03.30	00.00	02.50
	Unskilled	03.30	00.70	00.80
Jind	Household	81.00	100.00	81.80
	Agricultural	11.10	00.00	10.60
	Skilled	00.00	00.00	00.00
	Unskilled	03.20	00.00	03.00
Kaithal	Household	75.10	68.10	70.50
	Agricultural	10.00	19.30	17.10
	Skilled	00.00	00.00	00.00
	Unskilled	05.00	01.40	02.70
Sirsa	Household	86.40	70.00	81.30
	Agricultural	09.10	10.00	09.40
	Skilled	00.00	10.00	03.10
	Unskilled	04.50	10.00	06.30

Educational Status of Parents

The table below reveals that more than 50 per cent of the fathers of dropout children were illiterate with highest (73.2%) in Kaithal. In the case of mothers the illiteracy rate is very much higher.

Table 3.4.8: Educational Status of Parents

District		Father	Mother
Hissar	Illiterate	58.00	84.90
	Literate	37.80	10.90
Jind	Illiterate	56.10	92.40
	Literate	40.90	04.50
Kaithal	Illiterate	73.20	92.90
	Literate	19.60	06.00
Sirsa	Illiterate	56.30	93.80
	Literate	40.70	06.20

Majority of dropouts in Hissar, Jind and Kaithal had the same medium of instruction as their mother tongue. It was seen that in Sirsa only one third of the dropouts had the same medium of instruction. An indept study can be done to examine this phenomenon in this district.(Table 3.4.9)

Table 3.4.9: Medium of Instruction of Dropouts in Schools Last Attended

District	Medium of Instruction	Boys	Girls	Total
HISSAR	Not Attended any School	41 (78.80)	50 (74.60)	91 (76.50)
	Mother Tongue	11 (21.20)	14 (20.90)	25 (21.00)
	Other Than Mother Tongue	00.00	4 (04.50)	3 (02.50)
	Total	52 (43.70)	67 (56.30)	119 (100.00)
JIND	Not Attended any School	15 (75.00)	38 (82.60)	53 (83.30)
	Mother Tongue	4 (20.00)	6 (13.00)	10 (15.20)
	Other Than Mother Tongue	1 (05.00)	2 (04.40)	3 (04.50)
	Total	20 (30.30)	46 (69.70)	66 (100.00)
KAITHAL	Not Attended any School	32 (80.00)	62 (86.10)	94 (83.90)
	Mother Tongue	6 (15.00)	8 (11.10)	14 (12.50)
	Other Than Mother Tongue	2 (50.00)	2 (02.80)	4 (03.60)
	Total	40 (35.70)	72 (64.30)	112 (100.00)
SIRSA	Not Attended any School	5 (38.50)	6 (41.60)	11 (34.40)
	Mother Tongue	4 (30.80)	6 (31.60)	10 (31.30)
	Other Than Mother Tongue	4 (30.80)	7 (36.80)	11 (34.40)
	Total	13 (40.60)	19 (59.40)	32 (100.00)

Nutrition and Health Status

Almost all the dropouts reported getting all three meals daily in all the districts. In Jind 10.6 per cent dropouts said that they get the afternoon meal sometimes and 3.6 per cent never get the morning meal in Sirsa. Like the students of Class V in the sample, the dropouts in the four districts enjoy a good health status with only a small percentage reported fever in the district of Sirsa (Table 3.4.10)

Table 3.4.10: Nutritional Status of Dropouts

	Hissar			Jind		
	M	A	E	M	A	E
Always	97.50	99.20	98.30	90.90	89.40	93.90
Sometimes	02.50	00.80	01.70	09.10	10.60	06.10
Never	00.00	00.00	00.00	00.00	00.00	00.00
	Kaithal			Sirsa		
	M	A	E	M	A	E
Always	93.80	92.90	100.00	93.80	93.80	100.00
Sometimes	05.40	04.50	00.00	00.00	03.10	00.00
Never	00.80	02.70	00.00	06.30	03.10	00.00

M = Morning, A = Afternoon, E = Evening

A very small percentage of the children have any disability except in the district of Jind where 6.1 per cent have orthopedic disability (Table 3.4.11).

Table 3.4.11: Health Status of Sample Pupils

Impairment	District			
	Hissar	Jind	Kaithal	Sirsa
Vision	02.50	01.50	00.00	00.00
Hearing	01.70	03.00	00.90	03.10
Speech	02.50	00.00	02.70	03.10
Limbs	02.50	06.10	01.80	00.00
Fever	02.50	04.50	04.50	15.60
Asthama	01.70	01.50	00.90	03.10
Diarrohoea	00.80	01.50	00.90	03.10
Skin Disorder	05.00	00.00	00.90	00.00

Class Last Attended by Dropouts

The survey indicates that about one fourth of the dropouts were from Class III, about a third in class IV and about 40 percent in class V in three out of the four districts. The picture in Sirsa is different where a very small percentage (3.1) were from Class III and a large percentage (78.1) were from Class V. It may be due to the fact that pupils enrolled in Class I easily proceed upto Class V in accordance with the policy measures taken by the State Government to reduce the dropout rate. This finding has a policy implication for undertaking suitable measures to maintain the desirable enrolment rate after Class III of primary schooling level.(Table 3.4.12). The situation in sirsa needs a closer look.

Table 3.4.12: Sampled Dropouts by Class in which Last Enrolled (in Percentage)

Class	Hissar	Jind	Kaithal	Sirsa
Class 3	24.40	25.80	22.30	03.10
Class 4	36.10	33.30	38.40	18.80
Class 5	39.50	40.90	39.30	78.10

Repetition Rate

The repetition rate in one or the other class is key indicator of dropout rate. Table 3.4.13 shows that barring Hissar, in the other three districts the number of dropouts not detained in one or the other class are less than 50 per cent. In the district Sirsa the detention is comparatively lower than the other districts.

Table 3.4.13: Repetition Rate of Dropouts

District	Once	Twice	Thrice	Not Detained
Hissar	36.97	05.90	00.84	56.39
Jind	31.34	26.90	00.00	41.76
Kaithal	62.50	08.93	00.00	28.57
Sirsa	57.58	15.15	03.03	24.24

Among the dropout sample repeating classes comparisons shows that the repetition rate in Class III and above is higher than in the begining classes (Table 3.4.14). This may be due to the existing policy of mass promotion in the early stages of primary education.

The genderwise variation in this regard are also significantly in favour of boys in all the four districts. It could be attributed to girls leaving school in the early stage. Those who are retained tend to complete later stages of primary schooling better. Details are seen in Table 3.4.14.

Table 3.4.14: Percentage Classwise Repitition Rate of Dropouts

District	Class	Boys	Girls	Total
Hissar	1	1.9	0.0	0.8
	2	7.7	10.4	9.2
	3	34.7	28.3	31.1
	4	48.1	47.7	47.9
	5	90.3	97.0	94.1
Jind	1	5.0	0.0	1.5
	2	5.0	8.7	7.6
	3	5.0	19.6	18.2
	4	0.0	8.7	6.1
	5	0.0	6.5	4.5
Kaithal	1	5.0	1.4	2.7
	2	15.0	8.3	10.7
	3	25.0	19.4	21.4
	4	22.5	12.5	16.1
	5	17.5	12.5	14.3
Sirsa	1	0.0	10.0	3.1
	2	0.0	20.0	6.3
	3	30.8	26.3	28.1
	4	22.7	0.0	0.0
	5	0.0	0.0	0.0

Table 3.4.15: Percentage of Castewise Repetition of Dropouts

District	SC/ST	OBC	Others
Hissar	42.90	15.10	42.00
Jind	28.50	18.20	53.00
Kaithal	44.70	17.90	37.50
Sirsa	53.10	15.60	31.30

The percentage repetition among the sampled dropouts was the lowest among the OBC in all the districts.

The dropouts repeating different grades were also studied with regard to their repetition frequently in different classes. Table 3.4.16 indicates that most of the dropouts had repeated the classes once in one or the other class in three districts. In Jind, more dropouts repeat twice in one or the other class. There were very few students who had repeating thrice in their primary school stage. But in the district of Sirsa the plight is poor with the percentage of those repeated thrice being too much higher.

Table 3.4.16: Percentage and Number of Times Dropouts Repeated Classes

District	Class	Boys			Girls			Total		
		Once	Twice	Thrice	Once	Twice	Thrice	Once	Twice	Thrice
Hissar	1	01.90	01.90	00.00	00.00	00.00	00.00	00.80	00.80	00.00
	2	07.70	01.90	00.00	10.40	00.00	00.00	09.20	00.80	00.00
	3	17.30	05.80	00.00	11.90	00-00	00.00	14.30	02.50	00.00
	4	05.80	00.00	01.90	09.00	01.50	00.00	07.60	00.80	00.80
	5	11.50	00.00	00.00	00.00	01.50	00.00	05.00	00.80	00.00
Jind	1	00.00	20.00	00.00	00.00	02.20	00.00	00.00	07.20	00.00
	2	05.00	20.00	00.00	08.70	00.00	00.00	07.60	06.10	00.00
	3	10.00	20.00	00.10	17.40	04.30	00.00	15.20	09.10	00.00
	4	00.00	15.00	00.00	06.50	00.00	00.00	04.50	04.50	00.00
	5	00.00	00.00	00.00	06.50	00.00	00.00	04.50	00.00	00.00
Kaithal	1	05.00	02.50	00.00	02.80	00.00	00.00	03.60	00.90	00.00
	2	15.00	02.50	00.00	09.70	00.00	00.00	11.60	00.90	00.00
	3	22.90	05.00	00.00	16.70	02.80	00.00	18.80	03.60	00.00
	4	20.00	05.00	00.00	13.90	00.00	00.00	16.10	01.80	00.00
	5	17.50	00.00	00.00	09.70	02.80	00.00	12.50	01.80	00.00
Sirsa	1	00.00	00.00	00.00	00.00	05.30	00.00	00.00	00.00	03.10
	2	00.00	07.70	00.00	00.00	05.30	00.00	00.00	00.00	06.30
	3	23.10	07.70	00.00	154 80	05.30	05.30	18.80	06.30	03.10
	4	15.40	00.00	00.00	21.10	00.00	00.00	18.80	00.00	00.00
	5	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00

Reasons for Discontinuing Studies

In order to make proper interventions dropouts were asked to give reasons for discontinuation of studies. The dropouts cited many reasons responsible for discontinuance of their studies. Of the four districts in Hissar, Jind, and Kaithal, more than 50 per cent of the dropouts cited parents unwillingness to continue their studies as the main reason where as in Sirsa the main reason was cited as studies being too difficult/not interested followed by the parents unwillingness. Among these districts a genderwise variation is an interesting feature. In the first two districts, there were more dropouts among boys than their counterparts whereas in the other two districts more girls were dropping out in one or the other class.

Table 3.4.17: Reasons for Discontinuance of Studies by Dropouts

District	Reasons	Boys	Girls	Total
Hissar	1. Parents do not want	59.6	44.8	51.2
	2. Have to assist in household	11.5	29.9	21.8
	3. Will have to earn a living	7.7	4.5	5.9
	4. Training in household enterprise	0.0	1.5	0.8
	5. Studies too difficult/Not interested	13.4	13.5	13.4
	6. Cannot afford textbooks/notebooks	0.0	0.0	0.0
	7. Illness/Not keeping well	1.9	1.5	1.7
	8. Will get married	1.9	0.0	0.8
	9. Schools too far	1.9	0.0	0.8
	10. Other	1.9	3.0	2.5
Jind	1. Parents do not want	80.0	69.5	72.7
	2. Have to assist in household	0.0	13.0	9.1
	3. Will have to earn a living	5.0	0.0	1.5
	4. Training in household enterprise	0.0	0.0	0.0
	5. Studies too difficult/Not interested	10.0	15.2	13.6
	6. Cannot afford textbooks/notebooks	0.0	0.0	0.0
	7. Illness/Not keeping well	5.0	2.2	3.0
	8. Will get married	0.0	0.0	0.0
	9. Schools too far	0.0	0.0	0.0
	10. Other	0.0	0.0	0.0

On further analysis two other major reasons which emerged were engagement of dropouts in household work and difficulty in studies. A few percentage of dropouts said that they had stopped going to school so as to earn a livelihood. The most important finding reflecting the changing socio-cultural system that emerged here was that a negligible number of dropouts cited marriage as a reason for stopping their education.

Table 3.4.17a: Reasons for Discontinuance of Studies by Dropouts

District	Reasons	Boys	Girls	Total
Kaithal	1. Parents do not want	52.5	59.8	57.1
	2. Have to assist in household	12.5	12.5	12.5
	3. Will have to earn a living	5.0	4.3	2.7
	4. Training in household enterprise	2.5	1.4	1.8
	5. Studies too difficult/Not interested	15.0	16.7	16.1
	6. Cannot afford textbooks/notebooks	2.5	0.0	0.9
	7. Illness/Not keeping well	0.0	4.2	2.7
	8. Will get married	2.5	0.0	0.9
	9. Schools too far	0.0	0.0	0.0
	10. Other	7.5	4.2	5.4
Sirsa	1. Parents do not want	30.8	36.9	34.4
	2. Have to assist in household	15.4	15.8	15.6
	3. Will have to earn a living	0.0	0.0	0.0
	4. Training in household enterprise	0.0	0.0	0.0
	5. Studies too difficult/Not interested	46.2	31.6	37.5
	6. Cannot afford textbooks/notebooks	0.0	5.3	3.1
	7. Illness/Not keeping well	0.0	5.3	3.1
	8. Will get married	7.7	0.0	3.1
	9. Schools too far	0.0	0.0	0.0
	10. Other	0.0	0.0	0.0

The dropout children while being interviewed by the field investigators were asked whether they would want to study any further. The Table 3.4.18 reveals that the lowest percentage of children expressed their willingness on this in Sirsa (28%). Genderwise comparison reveals more boys than girls wanting to study in Jind, Kaithal and Sirsa.

Table 3.4.18: Percentage of Dropouts Expressing Willingness to Study

District	Boys	Girls	Total
Hissar	45.80	61.20	48.70
Jind	70.00	52.20	47.00
Kaithal	52.50	43.00	46.40
Sirsa	30.80	26.30	28.10

Educational Aspirations of Dropouts

The educational aspirations of dropouts have a direct implication for making suitable policy interventions so that dropouts could continue their studies. A long percentage of the dropouts-reported their unwillingness to continue their studies. About one-tenth of the dropouts reported their willingness to study only upto middle class. However, in the districts of Hissar, Jind and Kaithal, one-third of the dropouts reported to study upto secondary level. The dropouts that wanted to go for higher education were almost negligible in all the districts except Jind (for details see Table 3.4.19). The low aspiration level of dropouts in all the districts needs to be looked into thoroughly and the main reason for this seems to be the illiteracy of parents.The effect of the media if properly used can be positive.

Table 3.4.19: Educational Aspirations of Dropout Students

District	Level	Boys	Girls	Total
Hissar	1. Don't want to study	46.1	56.7	52.1
	2. Primary	3.8	7.5	5.9
	3. Middle	13.5	11.9	12.6
	4. Secondary	28.3	20.9	24.4
	5. Senior Secondary	5.8	1.5	3.4
	6. Graduation	0.0	0.0	0.0
Jind	1. Don't want to study	35.0	47.9	43.9
	2. Primary	5.0	4.3	4.5
	3. Middle	10.0	13.0	12.1
	4. Secondary	45.0	23.9	30.3
	5. Senior Secondary	0.0	4.3	3.0
	6. Graduation	5.0	6.5	6.1
Kaithal	1. Don't want to study	50.0	55.6	52.7
	2. Primary	0.0	8.3	5.4
	3. Middle	7.5	6.9	7.1
	4. Secondary	37.5	22.2	27.7
	5. Senior Secondary	5.0	22.25.	5.4
	6. Graduation	0.0	0.0	0.0
Sirsa	1. Don't want to study	69.2	73.7	71.9
	2. Primary	7.7	10.5	9.4
	3. Middle	7.7	10.5	9.4
	4. Secondary	15.4	5.3	9.4
	5. Senior Secondary	0.0	0.0	0.0
	6. Graduation	0.0	0.0	0.0

When questioned on the type of school these children would like to study no child opted for the non-formal education centres in all the districts. The present school was the choice given by about half the children in Hissar and Jind and a third almost in Kaithal and Sirsa.(Table 3-4-20). This could be because of lack of awareness in children about the existance of other types of schools.

Table 3.4.20: Type of School Mostly liked by Dropout Students for Further Study

District	Type of School	Boys	Girls	Total
HISSAR	Same School	46.20	38.80	42.00
	Another School(Panchayat/Municipal/Govt	05.80	03.00	04.20
	Private/Aided School	03.80	01.50	02.50
	Non-Formal Education Centre	00.00	00.00	00.00
JIND	Same School	65.00	47.80	53.00
	Another School (Panchayat/Municipal/Govt	00.00	02.20	01.50
	Private/Aided School	05.00	02.20	03.00
	Non-Formal Education Centre	00.00	00.00	00.00
KAITHAL	Same School	42.50	31.90	35.70
	Another School(Panchayat/Municipal/Govt.	07.50	06.90	07.10
	Private/Aided School	02.50	04.20	03.60
	Non-Formal Education Centre	00.00	00.00	00.00
SIRSA	Same School	30.80	26.30	28.10
	Another School(Panchayat/Municipal/Govt	00.00	00.00	00.00
	Private/Aided School	00.00	00.00	00.00
	Non-Formal Education Centre	00.00	00.00	00.00

Table 3.4.21: Percentage of Dropouts Engaged in Different Occupations

District	Occupation	Boys	Girls	Total
HISSAR	1. Factory work	0.0	0.0	0.0
	2. Household Industry/artisan work	4.0	9.7	7.1
	3. Agricultural work	36.0	35.4	35.7
	4. Services (Domestic/shop/hotels etc.)	16.0	9.7	12.5
	5. Others	44.0	45.2	44.6
JIND	1. Factory work	0.0	0.0	0.0
	2. Household Industry/artisan work	0.0	0.0	0.0
	3. Agricultural work	58.3	31.6	41.9
	4. Services (Domestic/shop/hotels etc.)	8.3	10.5	9.7
	5. Others	33.3	57.9	48.4
KAITHAL	1. Factory work	0.0	0.0	0.0
	2. Household Industry/artisan work	20.8	3.6	11.5
	3. Agricultural work	8.3	21.4	5.4
	4. Services (Domestic/shop/hotels etc.)	25.0	14.3	19.2
	5. Others	45.9	60.4	53.8
SIRSA	1. Factory work	0.0	0.0	0.0
	2. Household Industry/artisan work	0.0	55.2	33.4
	3. Agricultural work	33.3	22.2	26.6
	4. Services (Domestic/shop/hotels etc.)	16.7	22.6	20.0
	5. Others	50.0	0.0	20.0

Most of these children were involved in agricultural labour, services in households and working in shops. The dropouts engaged in paid work were reported to be between 6.3 per cent in Sirsa to 18.8 per cent in Kaithal (3.4.22).

Table 3.4.22: Percentage of Dropouts Doing Paid Work

District	Paid Work		
	Boys	Girls	Total
HISSAR	19.2	16.4	17.6
JIND	25.0	2.2	9.1
KAITHAL	35.0	9.7	18.8
SIRSA	15.4	0.0	6.3

Achievement

On the basis of Class II curriculum the dropouts were administered one test each on literacy and numeracy. The aim was to test the comprehensive skills in language and basic mathematics.

Table 3.4.23: Dropout Literacy and Numeracy Test Profile

Area	Content	Items
Literacy	Factual	4
	Inferences	4
	Total	8
Numeracy	ADDITION 1. Involving single digit numbers	1
	2 Involving single and double digits	2
	3 Involving two double digits numbers	1
	SUBTRACTION 1. Involving one digit numbers	1
	2. Involving two digit numbers	1
	MULTIPLICATION 1. Involving two single digit numbers	1
	2. Involving double digit and single digit numbers	1
	Total	8

Table 3.4.24: Mean Achievement of Dropouts in Literacy (Genderwise)

Districts	Boys		Girls		Total		Significance
	Mean	S.D	Mean	S D	Mean	S.D	
Hissar	02.92	02.30	03.13	02.66	03.04	02.81	No
Jind	03.10	03.13	02.61	02.82	02.77	02.90	No
Kaithal	03.00	02.60	02.82	02.79	02.88	02.71	No
Sirsa	02.62	02.63	03.47	02.76	03.03	02.71	No

The percentage of dropouts in the literacy test was poor, as in none of the districts the average score crossed the 40 per cent mark. In Hissar and Sirsa the mean achievement score was slightly better than the other two districts. In Jind and Kaithal the boys did better whereas in Hissar and Sirsa the average score favoured the girls, although the difference in their performance being insignificant.

Table 3.4.25: Mean Achievement of Dropouts in Literacy (Locationwise)

Districts	Rural		Urban		Significance
	Mean	S.D	Mean	S.D	
Hissar	02.82	02.80	03.75	02.78	No
Jind	02.84	02.90	00.00	00.00	Yes
Kaithal	02.58	02.69	04.69	02.15	Yes
Sirsa	03.26	02.82	02.50	02.51	No

Though only 4.5 per cent of the dropouts in Jind were from urban areas but non of them could not answer even a single question of literacy test. On the other hand the urban dropouts of Kaithal answered more than 50 per cent questions on an average. Mean achievement score of rural dropouts in all the districts except Sirsa was below 3 out of 8. On an average basis the data indicates that the urban dropouts performed slightly better than the rural counterparts.

Table 3.4.26: Mean Achievement of Dropouts in Literacy (Castewise)

Districts	SC		OBC		Others		Significance		
	Mean	S.D	Mean	S.D	Mean	S.D	SC/ST OBC	SC/ST Others	OBC/ Others
Hissar	02.41	02.66	04.11	03.08	03.30	02.76	No	No	No
Jind	01.95	02.46	03.25	03.47	02.94	02.91	No	No	No
Kaithal	02.38	02.61	02.85	02.46	03.50	02.88	No	No	No
Sirsa	03.53	03.06	02.20	02.86	02.64	02.06	No	No	No

There is no significant difference in the mean achievement score of SC/ST, OBC and other category dropouts. Except for the OBC's of Hissar all the castes in all districts performed rather poorly. The SC dropouts of Sirsa did better than their counterparts in other three districts. Even their mean score was more than that of OBC's and Others' category dropouts. The performance of the SC/ST dropouts in Jind was lowest.

Table 3.4.27: Percentage of Dropouts Achieving Different Levels of Achievement Literacy (Genderwise)

Level	Hissar			Jind			Kaithal			Sirsa		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Zero Level	42.30	31.30	36.10	45.00	44.20	44.80	35.00	41.70	39.30	38.50	25.00	30.30
Not Achieving MLL	15.40	23.90	20.20	05.00	21.30	16.40	22.50	13.90	17.00	15.40	30.00	24.20
Achieving MLL	17.30	17.90	17.60	25.00	08.50	13.40	17.50	20.80	19.60	30.80	25.00	27.30
Approaching Mastery	05.80	16.80	11.80	05.00	12.80	10.40	15.00	06.90	09.80	07.70	00.00	03.00
Achieving Mastery	19.20	10.40	14.30	20.00	12.80	14.90	10.00	16.70	14.30	07.70	20.0	15.20

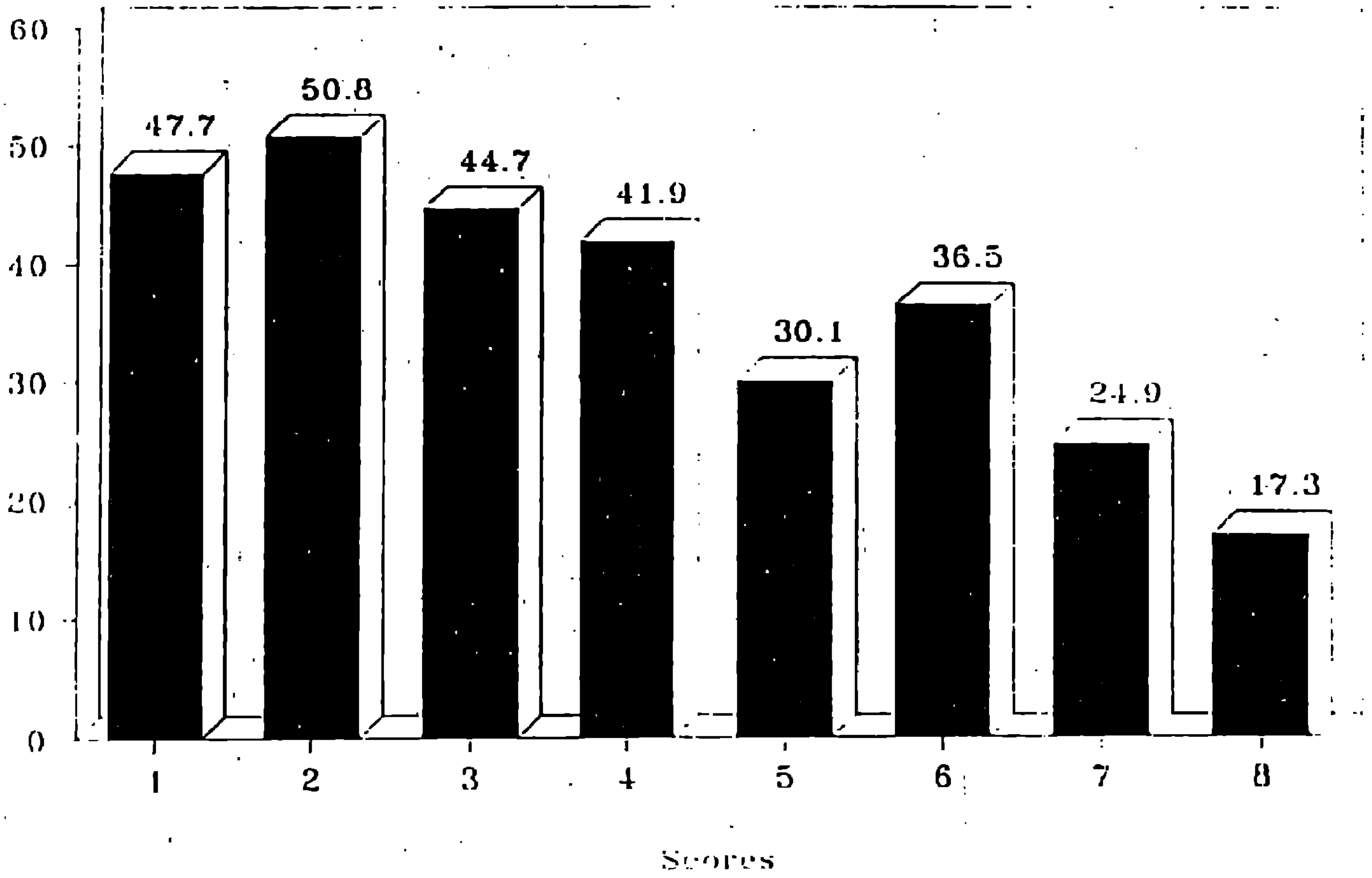
A large percentage of dropouts in all the districts could not answer even a single question, with the highest percentage of rural children being reported from Jind. Except in Kaithal more boys scores zero than girls in other three districts. Apart from this percentage ranging from a lowest of 5 per cent among boys of Jind to the highest of 30 per cent among the girls of Sirsa scored less than 40 per cent marks, i.e. they could not achieve MLL. More boys achieved the mastery level in Hissar and Jind whereas it was opposite in the case of Kaithal and Sirsa. (Table 3.4.27)

Table 3.4.28: Percentage of Dropouts Achieving Different Levels of Achievement Literacy (Locationwise)

Level	Hissar		Jind		Kaithal		Sirsa	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Zero Level	38.50	28.60	42.20	100.00	43.80	12.50	26.10	40.00
Not Achieving MLL	23.10	10.70	17.20	00.00	18.80	06.30	30.40	10.00
Achieving MLL	13.20	32.10	14.10	00.00	17.70	31.30	21.70	40.00
Approaching Mastery	13.20	07.10	10.90	00.00	05.20	37.50	00.00	10.00
Achieving Mastery	12.10	21.40	15.60	00.00	14.60	12.50	21.70	00.00

The average score of urban dropouts, as reported earlier, gave them a slight edge over their rural counterparts but in achieving different levels of achievements they performed lower than rural dropouts. It can be said so as in Jind and Sirsa the percentage of dropouts who had scored zero was 100 per cent and 40 per cent, respectively. Moreover none of the urban dropouts in these two districts could achieve the mastery level. The only significant feature in favour of urban dropouts was in the district of Kaithal where about 38 per cent reported approaching mastery level.

Itemwise Performance of Dropout Students Literacy



Castewise also the picture is not very different as a large percentage of dropouts belonging to all castes could not score even a single mark. Combining the zero level and those not achieving MLL the data reveals that almost more than 50 per cent (80% in the case of OBC's of Sirsa) of the dropouts belonging to all castes come in these two levels of achievement. The exception being the OBC's of Hissar and Others category dropouts of Kaithal. But still fairly good percentage of dropouts belonging to all castes performed well towards the level of achieving mastery level. (Table 3.4.29).

Table 3.4.29: Percentage of Dropouts Achieving Different Levels of Achievement Literacy (Castewise)

Level	Hissar			Jind			Kaithal			Sirsa		
	SC/S 51	OBC 18	Other 50	SC/ST 19	OBC 12	Others 36	SC/ST 50	OBC 20	Others 42	SC/ST 17	OBC 5	Others 11
Zero Level	45.10	27.80	30.00	52.60	50.00	38.90	46.00	35.00	33.30	35.30	40.00	18.20
Not Achieving MLL	21.60	11.10	22.00	21.10	00.00	19.40	22.00	15.00	11.90	11.80	40.00	36.40
Achieving MLL	13.70	16.70	22.00	10.50	08.30	16.70	14.00	35.00	19.00	23.50	00.00	45.50
Approaching Mastery	09.80	11.10	14.00	15.80	16.70	05.60	06.00	05.00	16.70	05.90	00.00	00.00
Achieving Mastery	09.80	33.30	12.00	00.00	25.00	19.40	12.00	10.00	19.00	23.50	20.00	00.00

Table 3.4.30: Dropout Achievement in Literacy- Itemwise Analysis

Items	Percentage Correct Responses
1	47.70
2	50.80
3	44.70
4	41.90
5	30.10
6	36.50
7	24.90
8	17.30

Itemwise Analysis

In case of four items less than 40 per cent students were able to answer them correctly. The other four higher ranging items were answered by 43 to 50 per cent students.

Table 3.4.31: Mean Achievement of Dropouts in Numeracy (Genderwise)

District	Boys		Girls		Total		Significance
	Mean	SD	Mean	SD	Mean	SD	
Hissar	04.15	02.45	03.94	02.59	04.03	02.52	No
Jind	04.05	03.09	03.13	02.48	03.36	02.70	No
Kaithal	04.33	02.48	04.17	02.61	04.22	02.55	No
Sirsa	03.69	02.75	03.53	02.37	03.48	02.53	No

In numeracy the dropouts performed comparatively better than in literacy test with the result favouring the boys in all the districts, although the difference is very marginal. The girls of Kaithal with a mean score of 4.17 scored better than their counterparts in other three districts.

Table 3.4.32: Mean Achievement of Dropouts in Numeracy (Locationwise)

District	Rural		Urban		Significance
	Mean	S.D	Mean	S.D	
Hissar	04.16	02.55	03.61	02.42	No
Jind	03.42	02.74	02.00	01.00	No
Kaithal	03.90	02.46	06.19	02.29	Yes
Sirsa	03.35	02.48	03.80	02.74	No

The general picture which emerges from the Table 3.4.32 is that in Hissar and Jind the average in numeracy test favoured the rural dropouts whereas in other two districts the urban dropouts outnumbered their rural counterparts in mean achievement score. The highest (4.19) mean score was achieved by the urban dropouts of Kaithal.

Table 3.4.33: Mean Achievement of Dropouts in Numeracy (Castewise)

District	SC/ST		OBC		Others		Significance		
	Mean	SD	Mean	SD	Mean	SD	SC/ST OBC	SC/ST Others	OBC Others
Hissar	03.06	02.52	04.50	02.48	04.86	02.23	Yes	Yes	No
Jind	03.05	02.90	04.42	02.57	03.17	02.62	No	No	No
Kaithal	03.92	02.59	04.10	02.49	04.64	02.55	No	No	No
Sirsa	04.06	02.54	02.40	02.30	03.09	02.59	No	No	No

The performance of all caste dropouts was reported to be below 50 per cent. In Sirsa SC/ST dropouts performed better than their counterparts in other districts. There is statistical significance in the performance of SC/ST-OBC dropouts and SC/ST-Others category dropouts.

Achievement Level of Dropout in Numeracy (Genderwise)

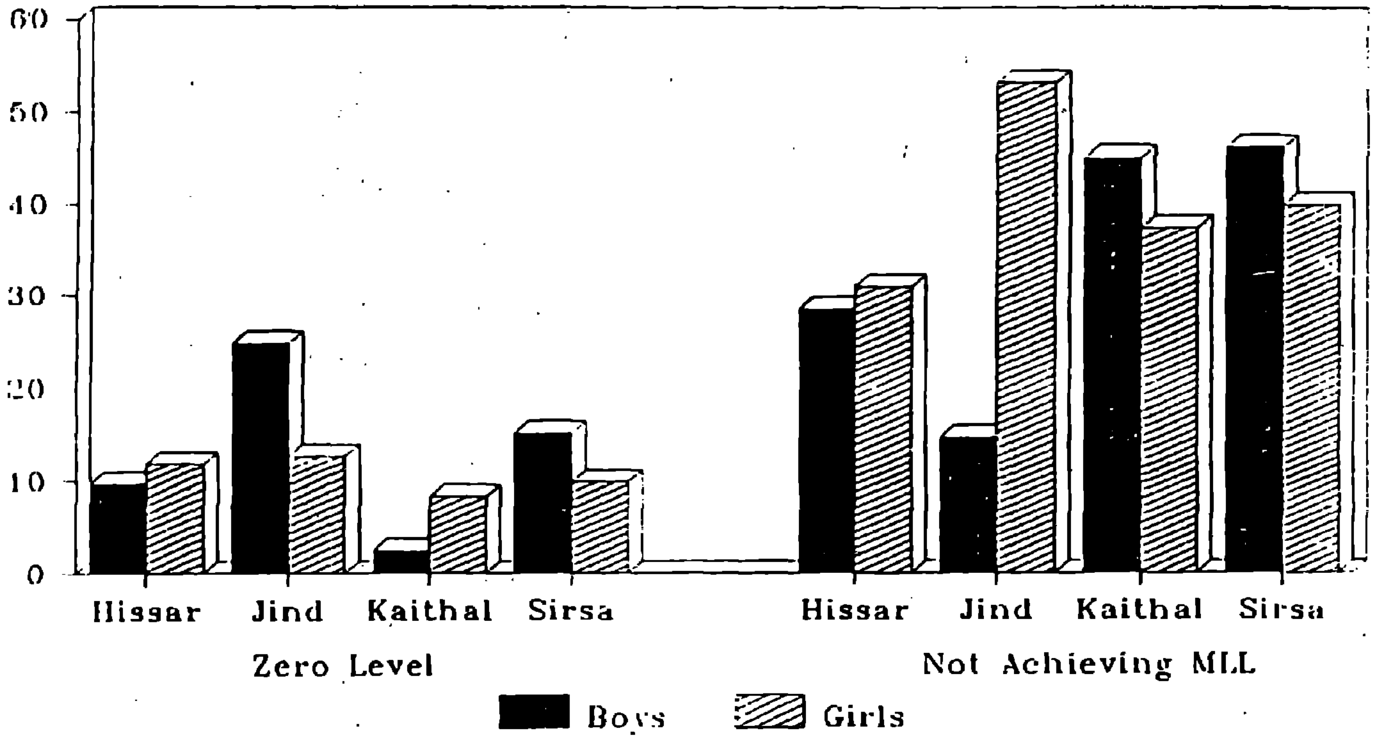


Fig. 43

Table 3.4.34: Percentage of Dropouts Achieving Different Levels of Achievement in Numeracy (Genderwise)

Level	Hissar			Jind			Kaithal			Sirsa		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Zero Level	09.60	11.90	10.90	25.00	12.80	16.40	02.50	08.30	06.30	15.40	10.00	12.11
Not Achieving MLL	28.80	31.30	30.30	15.00	53.20	41.80	45.00	37.50	40.20	46.20	40.00	42.40
Achieving MLL	26.90	20.90	23.50	20.00	17.00	17.90	22.50	23.60	23.20	15.40	25.00	21.30
Approaching Mastery	13.50	19.40	16.80	15.00	00.00	04.50	05.00	05.60	05.40	00.00	20.00	12.10
Achieving Mastery	21.20	16.40	18.50	25.00	17.00	19.40	25.00	25.00	25.00	23.10	05.00	12.10

A large percentage of dropouts could not achieve MLL although the percentage of dropouts who scored zero was low. More boys achieved the mastery level than girls in all the districts except in Kaithal where equal per cent of boys and girls achieved this level. Only 5 per cent of girl dropouts in Sirsa could achieve the mastery level.

Table 3.4.35: Percentage of Dropouts Achieving Different Levels of Achievement in Numeracy (Locationwise)

Level	Hissar		Jind		Kaithal		Sirsa	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Zero Level	08.80	17.90	17.20	00.00	07.30	00.00	13.00	10.00
Not Achieving MLL	30.80	28.60	39.10	100.00	42.70	25.00	39.10	50.00
Achieving MLL	20.00	28.60	18.80	00.00	25.00	12.50	26.10	10.00
Approaching Mastery	17.60	14.30	04.70	00.00	06.30	00.00	13.00	10.00
Achieving Mastery	20.90	10.70	20.30	00.00	18.80	62.50	08.70	20.00

The Table clearly indicates that among the urban dropouts of Jind, none could achieve MLL. 50 per cent of the urban Sirsa dropouts reported the same. The rural dropouts in Hissar and Jind performed better than their urban counterparts in achieving different levels of achievement. It was opposite in the case of other two districts. The most significant feature which emerges is that 62.5 per cent dropouts of urban Kaithal achieve the mastery level.

Table 3.4.36: Percentage of Dropouts Achieving Different Levels of Achievement in Numeracy (Castewise)

Level	Hissar			Jind			Kaithal			Sirsa		
	SC/S 51	OBC 18	Other 50	SC/ST 19	OBC 12	Others 36	SC/ST 50	OBC 20	Others 42	SC/ST 17	OBC 5	Others 11
Zero Level	19.60	11.10	02.00	26.30	00.00	16.70	08.00	05.00	04.80	05.90	20.00	18.20
Not Achieving MLL	39.20	22.20	24.00	36.80	41.70	44.40	42.00	50.00	33.80	41.20	60.00	36.40
Achieving MLL	17.60	22.20	30.00	15.80	25.00	16.70	24.00	10.00	28.60	23.50	00.00	27.30
Approaching Mastery	13.70	22.20	18.00	00.00	08.30	05.60	04.00	15.00	02.40	11.80	20.00	09.10
Achieving Mastery	09.80	22.20	26.00	21.10	25.00	16.70	22.00	20.00	31.40	17.60	00.00	09.10

The Others category dropouts performed marginally better than the dropouts belonging to SC/ST and OBC at different levels of achievement. More than 50 per cent dropouts of all castes either scored zero or could not achieve MLL except in the district of Hissar. None of the OBC dropouts in Sirsa could achieve the mastery level whereas in other districts fairly good percentage of dropouts belonging to all castes achieved the mastery level. Significantly in Sirsa more SC/ST dropouts achieved this level than other caste group dropouts.

Itemwise Performance of Dropout Students Numeracy

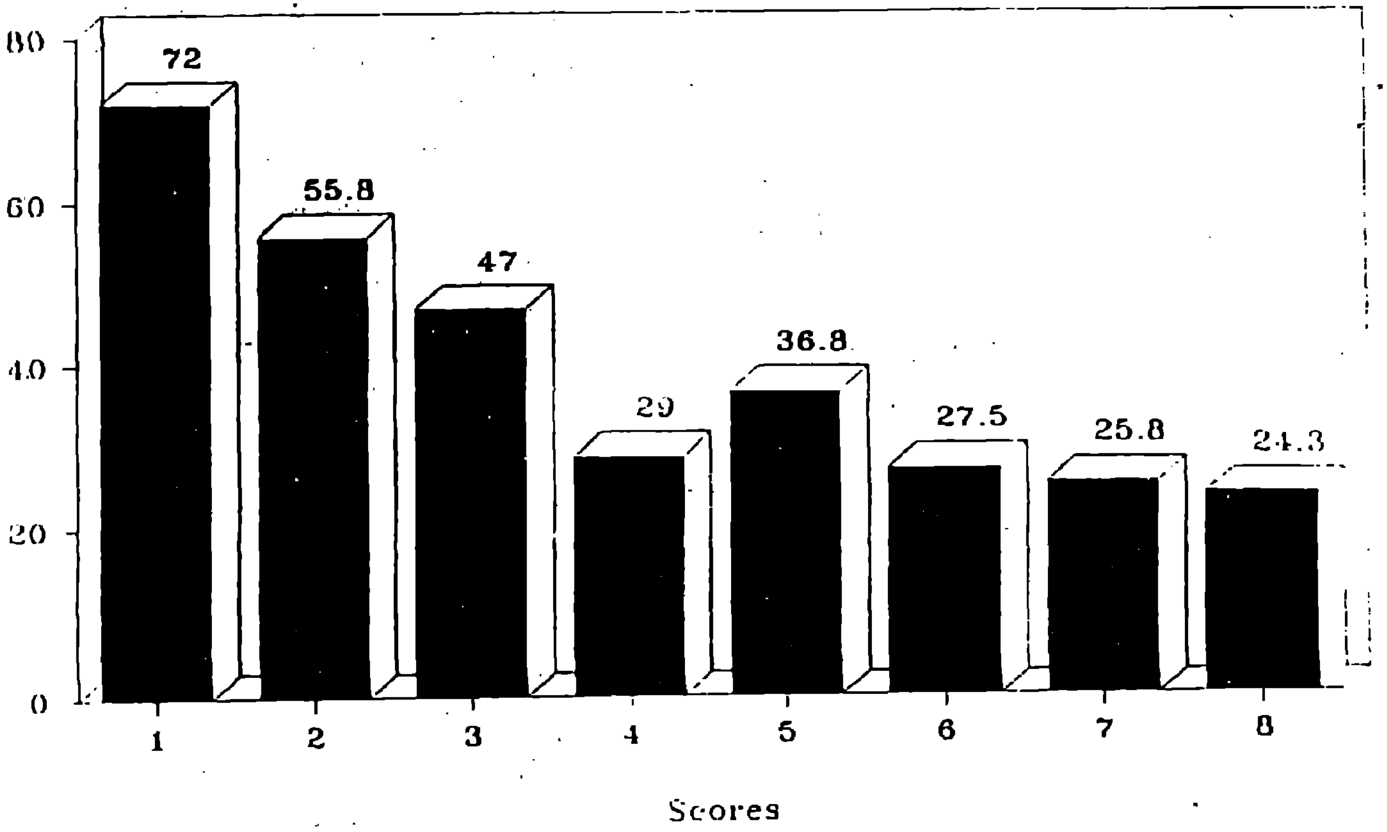


Fig. 44

Table 3.4.37: Dropout Achievement in Numeracy - Itemwise Analysis

Items	Percentage Correct Responses
1	72.00
2	55.80
3	47.00
4	29.00
5	38.80
6	27.50
7	25.80
8	24.30

It could be seen that about 50 per cent of the dropouts responded correctly on the three items. About 37 per cent dropouts gave correct answer to one item. However, in the other four items the response was very poor as only about 25 per cent of the dropouts responded correctly. These four items can thus be labelled as difficult items. These difficult items fall in all the three content areas, but varies in nature. In addition the dropouts faced difficulty in these items in which a two digit number has to be added. In subtraction another difficult area, it seems that these children lack the ability to borrow from the adjacent number. In multiplication also the dropouts faced difficulty in multiplying a two digit number.

SECTION V

Teachers and Head Teachers

In the four districts, 548 teachers including head teachers from the sampled schools formed the sample. They were interviewed by the field team. The highest percentage of sampled teachers belonged to Jind 37.8 (206) followed by Hissar 25.18 (138), Sirsa 20.43 (112) and Kaithal 16.59 (92).

Teacher Characteristics

This section shows distribution of sample teachers in the four districts according to gender, caste and area. Besides this, the section also includes background of the teachers, training input acquired by them and their perception regarding the teaching-learning process. A mention is also made of the infrastructural facilities available in the schools and the help extended to them by head teachers, BEO, DEO, etc.

Gender, Caste and Locationwise Distribution

The genderwise analysis of data reveals a preference for female teachers in the early schools years. The Table 3.5.1 given below indicates that out of the four districts in Hissar and Sirsa the percentage of female teachers are found to be higher than their male counterparts. In the district of Hissar, strangely the percentage of female teachers is three times more than that of male teachers. It is twice that of male teachers in the district of Sirsa, but in the districts of Jind and Kaithal, there is almost an equal ratio of male and female sampled teachers.

The representation of disadvantaged groups in the sampled teachers is found to be lower considering the recruitment policy of the government. In all the districts teachers from SC and ST are the least represented. Their percentage in the sampled population ranges from 6 to 12 per cent. This is below the population proportion. A similar picture also emerges in case of representation of OBC teachers which falls in the range of 8 to 14 per cent. Two-third of sampled teachers are dominated by teachers belonging to the 'Others' category. For details see Table 3.5.1.

The population of sampled teachers' representation from the rural and urban areas is found close to the population of sampled schools taken from the four districts (Table 3.5.1).

Table 3.5.1: Percentage Distribution of Sampled Teachers

District	Male	Female	Rural	Urban	SC/ST	OBC	Others
HISSAR (N=138)	29.0	71.0	74.6	25.4	5.8	11.6	82.6
JIND (N=206)	52.4	47.6	83.9	16.1	6.8	8.3	85.0
KAITHAL (N=92)	51.1	48.9	79.3	20.7	3.3	14.1	82.6
SIRSA (N=112)	35.7	64.3	77.6	22.4	11.6	8.9	79.5

Table 3.5.2 shows that apart from the district of Hissar more male than female head teachers constitute the sample. Most of them belong to the 'Others' category. Since a majority of the schools were from the rural areas a more representation of the head teachers was also from this area.

Table 3.5.2: Percentage Distribution of Sampled Head Teachers

District	Male	Female	SC/ST	OBC	Others	Rural	Urban
Hissar	37.80	62.20	04.40	13.30	82.20	84.40	15.60
Jind	55.80	44.20	04.70	16.30	79.10	83.10	16.30
Kaithal	65.50	34.50	10.30	13.80	75.90	86.20	13.80
Sirsa	55.20	44.80	13.80	10.30	75.90	86.20	13.80

Age, Educational Background

The age distribution of teachers is a major indicator of the recruitment policy of the government. This is also based on the experience gained by the teachers over a period of time. Table 3.5.3 indicates that in the districts of Hissar, Jind and Kaithal, more than half of the male teachers are 45 and above. However, in the district of Sirsa the age representation is found to be below 40 years. In case of the female teachers the age range is concentrated between 35-44 years. This is one of the major indicators reflecting the trend of the recruitment policy of the state government.

Table 3.5.3 Percentage Distribution of Teachers (Genderwise, Agewise).

District	Age Group (in Years)	Number of Teachers		
		Male	Female	Total
HISSAR	Below 25	10.0	0.0	2.9
	25-29	20.0	5.1	9.4
	30-34	10.0	20.4	17.4
	35-44	10.0	51.0	39.1
	45 and above	50.0	23.5	31.2
JIND	Below 25	0.9	5.1	2.9
	25-29	1.9	2.0	1.9
	30-34	6.5	26.5	16.0
	35-44	24.1	44.9	34.0
	45 and above	66.7	21.4	45.2
KAITHAL	Below 25	2.1	2.2	2.2
	25-29	0.0	2.2	1.1
	30-34	2.1	35.6	18.5
	35-44	17.0	35.6	26.1
	45 and above	78.7	24.4	52.2
SIRSA	Below 25	5.0	0.0	1.8
	25-29	10.0	1.4	4.5
	30-34	22.5	34.7	30.4
	35-44	25.0	40.3	34.8
	45 and above	37.5	23.6	28.6

Another point of interest emerging is that more concentration of female teachers is in the under 34 age group as compared to male teachers. This also reflects the gender bias in the experience level of male and female teachers. It also shows that the representation of young teachers in the age group of 25 and below is almost negligible in the districts of Jind, Kaithal and Sirsa. In the district Hissar and Sirsa, there are no female teachers in this age group. It may be due to the fact that female teachers joined the profession late. It clearly indicates that no fresh recruitment have been made in the recent past.

Educational Background

The educational qualifications of the teachers are among many other determinants an important indicator of the achievement of children. Table 3.5.4 indicates that about two-third of the teachers had passed matriculation and 11-21 per cent of teachers had higher secondary qualifications. The field notes suggest that most teachers recruited, had graduation degrees at the time of entry into the profession. The number of teachers going for higher academic courses or having post-graduate degree are found to be almost non-existent in the district of Kaithal and Jind. In Hissar and Sirsa there is only a negligible percentage (1-5 %). On the other hand, it is heartening to note that there is not even a single teacher in the sample who is an under-matriculate.

There is a districtwise gender difference in educational levels of sampled teachers. It is evident from the analysis that there are more qualified female teachers (graduate and post graduate)in Hissar and Kaithal than male teachers. However, in Sirsa and Jind an opposite trend could be seen. These difference may be due to district specific social factors like late entry of females into the education profession. In addition to this, in Sirsa, it could be because of a lesser degree of development. An attempt was made to see any existing relationship with the level of educational attainment of the teachers as the sample children were administered test in mathematics and language.

Table 3.5.4: Percentage Distribution of Teachers According to Educational Level

Qualification	Hissar			Jind		
	Male	Female	Total	Male	Female	Total
8th pass	0.0	0.0	0.0	0.0	0.0	0.0
Matriculation	65.0	81.6	76.8	74.1	75.5	74.0
Hr. Secondary	30.0	7.1	13.8	14.8	19.4	17.0
Graduation	5.0	7.1	6.5	10.2	5.1	7.8
Post-graduation	0.0	4.1	2.9	0.9	0.0	0.5

Qualification	Kaithal			Sirsa		
	Male	Female	Total	Male	Female	Total
8th pass	0.0	0.0	0.0	0.0	0.0	0.0
Matriculation	83.0	68.9	76.1	57.5	75.0	68.8
Hr. Secondary	6.5	15.6	10.9	22.5	19.4	20.5
Graduation	10.6	15.6	13.0	15.0	4.2	8.0
Post-graduation	0.0	0.0	0.0	5.0	1.4	2.7

Table 3.5.5 reveals that most of the teachers (94-97%) had studied mathematics upto Class X. There is no remarkable difference between the male and female teachers in this category. However, in the district of Sirsa, 98.6 per cent of female teachers, studied mathematics upto Class X against 87.5 per cent male teachers in the same district. Very few teachers (1 to 3%) have studied mathematics upto the Class XII.

Table 3.5.5: Percentage Distribution of Teachers According to Qualification in Mathematics

Districts	Studied upto class	Number of Teachers		
		Male	Female	Total
HISSAR	8th	00.00	00.00	00.00
	10th	95.00	98.00	97.10
	12th	05.00	02.00	02.90
	Any other	00.00	00.00	00.00
JIND	8th	00.00	03.10	01.50
	10th	97.20	95.90	96.60
	12th	02.80	00.00	01.50
	Any other	00.00	01.00	00.50
KAITHAL	8th	00.00	04.40	02.20
	10th	97.90	95.60	96.70
	12th	02.10	00.00	01.10
	Any other	00.00	00.00	00.00
SIRSA	8th	02.50	00.00	00.90
	10th	87.50	98.60	94.60
	12th	07.50	00.00	02.70
	Any other	02.50	01.40	01.80

As regards attainment in language most of the teachers ranging from 79-85 per cent have studied language upto Class X in the sampled district of Haryana. Again very few (5-9%) teachers have studied language upto Class XII. For details see Table 3.5.6.

Table 3.3.6: Percentage Distribution of Teachers according to Qualification in Language

Districts	Studied upto class	Number of Teachers		
		Male	Female	Total
HISSAR	8th	00.00	00.00	00.00
	10th	80.00	87.80	85.50
	12th	17.50	04.10	08.00
	Any other	02.50	08.20	06.50
JIND	8th	01.90	00.00	01.00
	10th	82.40	84.70	83.50
	12th	11.10	06.10	08.70
	Any other	04.60	09.20	06.80
KAITHAL	8th	00.00	02.20	01.10
	10th	83.20	75.60	79.30
	12th	08.50	08.90	08.70
	Any other	08.50	13.30	10.90
SIRSA	8th	00.00	01.40	00.90
	10th	70.00	94.40	85.70
	12th	12.50	01.40	05.40
	Any other	17.50	02.80	08.00

Keeping in view, the emerging poor performance of children in language and mathematics, improvement in teachers educational level seems necessary. The educational administrator need to motivate the teachers in this respect. Positive encouragement for those who take up higher educational attainment is also the need of the hour.

Pre-Service, In-Service Training

As per the recruitment policy of the government at the entry level the teacher is required to have a teacher training certificate/diploma. Table 3.5.7 indicates that the majority of the teachers had this professional training from a government recognised institute. There are very few teachers having graduate and post-degrees.

Table 3.5.7: Percentage Distribution of Teachers According to Professional Training

District	Teachers Training	Teachers (Sex-wise)			Teacher (Area Wise)	
		Male	Female	Total	Rural	Urban
Hissar	Primary/Elementary Teacher Certificate/ Diploma	100.00	99.00	99.30	100.00	07.10
	Graduate Trained (B.Ed. or Equivalent)	00.00	05.10	03.60	01.90	08.60
	M.Ed. & above	00.00	01.00	00.70	00.00	02.90
Jind	Primary/Elementary Teacher Certificate/ Diploma	97.20	91.80	94.70	99.40	69.70
	Graduate Trained (B.Ed. or Equivalent)	07.40	01.00	04.40	04.00	06.10
	M.Ed. & above	00.90	00.00	00.50	00.60	00.00
Kaithal	Primary/Elementary Teacher Certificate/ Diploma	97.90	97.80	97.80	97.30	100.00
	GraduateTrained (B.Ed. or Equivalent)	00.00	08.90	04.30	00.00	21.10
	M.Ed. & above	00.00	02.20	01.10	00.00	05.30
Sirsa	Primary/Elementary Teacher Certificate/ Diploma	97.50	100.0	99.10	98.90	100.00
	Graduate Trained (B.Ed. or Equivalent)	10.00	02.80	05.40	06.90	00.00
	M.Ed. & above	00.00	00.00	00.00	00.00	00.00

A small percentage of teachers were untrained (Table 3.5.8). Probably these teachers entered the profession due to non-availability of trained teachers and liberal recruitment policy of the state governments. This fact needs to be looked into to improve their efficiency in the work environment.

Table 3.5.8: Percentage of Untrained Teachers

Haryana			
Hissar	Jind	Kaithal	Sirsa
0.7	1.9	4.3	2.7

In-Service Training

In-service teacher training is one of the most important training inputs to be given to the teachers to improve their teaching and managerial skills. The study indicates that about one-third of the sample teachers are without any in-service training. Amongst them the proportion of female teachers is found to be higher. This finding has a direct correlation with the female teachers age group. As there are more male teachers getting an experience of 5 years and above the female teachers get less opportunity to undergo in-service training.

Table 3.5.9: Percentage of Teachers who have not undergone In-service Training

District	Rural	Urban	Male	Female	Total
Hissar	30.0	42.8	22.5	37.7	33.3
Jind	21.3	51.5	17.5	35.7	26.2
Kaithal	23.2	10.5	12.7	28.8	20.6
Sirsa	35.6	28.0	20.0	41.6	33.9

More than one third of the teachers expressed their desire to undergo in-service training (Table 3.5.10). These teachers may be probably from the group of teachers who have not undergone any in-service training. Another dimension of this result could be the lack of motivation to pursue in-service training. When asked whether they desire training in the classroom or institute more opted for training in the classroom (Table 3.5.11). This is probably because training provided earlier in institutes did not help them improve their teaching practice substantially.

In another study on motivation and training for primary school teachers, more than 70 per cent teachers wanted to undergo in-service training. However, achievement despite in-service training indicates its ineffectiveness.

Table 3.5.10: Percentage of Teachers Desiring In-service Training

Haryana			
Hissar	Jind	Kaithal	Sirsa
39.9	44.7	34.8	47.3

Table 3.5.11: Sample Teachers Perceptions on In-service Training

District	In Classroom	As Institute
Hissar	31.20	08.00
Jind	28.20	16.80
Kaithal	19.60	19.60
Sirsa	37.50	10.70

The teachers were asked to indicate their preferred choice of the content to be covered in in-service training. About 50 per cent of the teachers expressed their desire to undergo in-service training on the New Educational Policy. Very few teachers desired to have instruction pertaining to the area of multigrade training, and of teaching skills for lower primary classes. This is a matter of interest for planning future in-service training in order to help children attain minimum levels of learning. In-service training in subject matter may need to be emphasised. (Details are shown in Table 3.5.12 below).

Table 3.5.12: Format and Content of Training

Training Required	HISSAR		JIND		KAITHAL		SIRSA	
	Option 1	Option 2	Option 1	Option 2	Option 1	Option 2	Option 1	Option 2
Subject Matter	10.9	0.0	8.6	5.4	12.5	0.0	13.2	5.6
Presenting and Communicating subject matter	7.2	5.4	17.4	9.7	15.6	3.2	1.8	9.4
Multigrade Teaching	18.2	12.7	15.2	16.3	43.7	0.0	35.8	5.6
Teaching Skills for Lower Primary Classes	18.2	9.0	11.9	7.6	18.7	9.3	15.1	1.8
New Education Policy	41.8	30.9	45.6	40.2	18.7	62.5	28.3	52.8
Use of Teaching Aids	1.8	36.4	4.3	21.7	0.0	28.1	1.8	20.7
Others	3.6	7.2	1.0	1.0	3.2	6.25	1.8	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Teaching Aids and Basic Facilities

Table 3.5.13 indicates that the majority of the teachers reported availability of blackboard, duster, chalk, Table and chair. But 50 per cent of the teachers are without any cupboards to store their equipments. The most commonly used teaching aids like, charts, maps and globes are available with the teachers.

Table 3.5.13: Percentage of Teachers Reporting Availability of Basic Facilities

District	Teachers Training	Male	Female	Total	Rural	Urban	Total
HISAR	Black-board	97.5	99.0	98.0	99.0	97.1	98.6
	Duster	95.0	99.0	97.8	98.1	97.1	97.8
	Chalk	97.5	94.9	95.7	95.1	97.1	95.7
	Table(for Teachers)	85.0	89.8	88.4	87.4	91.4	88.4
	Chair(for teachers)	97.5	99.0	98.6	99.0	97.1	98.6
	Cupboard	55.0	43.9	47.1	45.6	51.4	47.1
JIND	Black-board	94.4	89.8	92.2	90.8	100.0	92.0
	Duster	90.7	85.7	88.3	87.9	90.9	88.3
	Chalk	96.3	93.9	95.1	94.8	97.0	95.1
	Table(for Teachers)	87.0	79.6	83.5	83.8	81.8	83.5
	Chair(for teachers)	97.2	91.0	94.7	93.6	100.0	94.7
	Cupboard	46.3	53.1	49.5	52.0	36.4	49.5
KAITHAL	Black-board	97.9	97.8	97.8	97.3	100.0	97.8
	Duster	95.7	93.3	94.6	93.2	100.0	94.6
	Chalk	93.6	97.8	95.7	94.5	100.0	95.7
	Table(for Teachers)	74.5	82.2	78.3	76.7	84.2	78.3
	Chair(for teachers)	93.6	100.0	96.7	95.9	100.0	96.7
	Cupboard	57.4	57.8	57.6	52.1	78.9	57.6
SIRSA	Black-board	97.5	97.2	97.3	97.7	96.0	97.3
	Duster	95.0	93.1	93.8	93.1	96.0	93.8
	Chalk	100.0	100.0	100.0	100.0	100.0	100.0
	Table(for Teachers)	80.0	73.6	75.9	70.1	96.0	75.9
	Chair(for teachers)	95.0	94.6	94.6	93.1	100.0	94.6
	Cupboard	42.5	38.9	40.2	31.0	72.0	40.2

However, teaching aids like dictionary, teaching guide, flash card, science kits, mathematics kits, books other than textbooks are reported available by only 50 per cent of the teachers. Table 3.5.14 indicate that though more than 50 per cent of the teachers reported that availability of teaching aids this percentage does not coincide with their use as reported by them.

Table 3.5.14: Percentage of Teachers Reporting Availability of Teaching Aids

Teaching Aids	Hissar	Jind	Kaithal	Sirsa
Teachers Guide	32.6	25.2	44.6	42.0
Dictionary	62.3	41.7	35.9	49.1
Map	91.3	71.4	81.5	69.1
Globe	85.5	62.1	71.7	69.6
Charts	87.0	72.8	85.9	84.8
Flash Cards	21.7	21.4	29.3	33.9
Science Kit	40.6	28.6	55.4	50.0
Mathematics Kit	30.4	19.7	44.6	27.7
Others	28.3	77.2	28.3	28.6

Future in-service training programmes need to focus on the use of teaching aids and kits. An additional dimension could be making and using low/no cost educational material.

Table 3.5.15: Percentage of Teachers reporting use of Teaching Aids

District	Language			Mathematics		
	Male	Female	Total	Male	Female	Total
Hissar	05.00	10.20	08.70	22.50	21.40	21.70
Jind	15.70	06.10	11.20	26.90	16.30	21.80
Kaithal	08.50	06.70	07.60	14.90	13.30	14.10
Sirsa	10.00	06.90	08.00	10.00	15.30	13.40

Teaching Pattern

Multigrade Teaching

There is a districtwise variation with regard to practice of multigrade teaching as reported by the sample teachers. The practice is highest in the district of Sirsa (22.7) followed by Hissar (18.3), Kaithal (12.9) and Jind (12.2).

Table 3.3.16: Teaching Practice in Multigrade Situation

District	Simultaneous Teaching	Number of Teachers		
		Male	Female	Total
HISSAR	Yes	12.5	21.9	18.3
	No	87.5	78.1	81.3
JIND	Yes	13.6	9.1	12.1
	No	86.4	90.9	87.9
KAITHAL	Yes	11.8	14.8	12.9
	No	88.2	85.7	87.1
SIRSA	Yes	14.3	30.4	22.7
	No	85.7	69.6	77.3

While practicing multigrade teaching about 40 per cent of teachers reported getting help from older children. This is similar to the traditional monitor system prevalent in schools. About 50 per cent of the teachers either instruct pupils to copy the work, on their own or play. In the sampled district of Haryana, over 12 to 22 per cent of teachers do not group the children and teach the same subject simultaneously. From the data available it is elicited that the percentage of female teachers followed this type of teaching pattern is more as compared to male teachers. However, only 9.1 per cent of female teachers in Jind district follow this type of teaching.

Table 3.5.17: Teaching Tasks Given to Other Groups While Teacher Teaches on Group in Multigrade Teaching Setting

District	Categories	Total Teachers			Teacher (Area Wise)		
		Male	Female	Total	Rural	Urban	Total
HISSAR	Copy work	29.4	27.6	28.3	31.7	0.0	28.3
	Wait, Work on, their own play	35.3	24.1	28.3	24.4	60.0	28.3
	Supervision by older children	29.4	44.8	39.1	39.0	40.0	39.1
	others	5.9	3.4	4.3	4.9	0.0	4.3
JIND	Copy work	72.0	29.4	54.8	56.4	33.3	54.8
	Wait, Work on, their own play	8.0	17.6	11.9	10.3	33.3	11.9
	Supervision by older children	20.9	29.4	23.8	25.6	0.0	23.8
	others	0.0	23.5	9.5	7.7	33.3	9.4
KAITHAL	Copy work	31.6	45.5	39.0	35.3	57.1	39.0
	Wait, Work on, their own play	26.3	13.6	19.5	23.5	0.0	19.5
	Supervision by older children	42.1	40.9	41.5	41.2	42.9	41.5
	others	0.0	0.0	0.0	0.0	0.0	0.0
SIRSA	Copy work	30.0	40.9	35.7	30.6	66.7	35.7
	Wait, Work on, their own play	15.1	36.4	26.2	25.0	33.3	26.2
	Supervision by older children	55.0	18.2	35.7	41.7	0.0	35.7
	others	0.0	4.5	2.4	2.8	0.0	2.4

Teachers were given a list of five most commonly performed activities in their class and asked to rank them according to the time spend by them. Their responses are provided in Table 3.5.18. Ranking the responses showed that planning and preparation for class gets the least priority. Probably because of lack of time, teachers reported that holding extra classes was also not such an important activity. The field notes suggest that teachers also felt that there was no need for this in early years. Teaching children and giving them individual response on their performance was ranked high.

Table 3.5.18: Ranking of Teaching Activities in Terms of Time Spent

Activity	Hissar	Jind	Kaithal	Sirsa
	Rank	Rank	Rank	Rank
Giving Tuition to the children	1	1	1	1
Providing Feed Back	2	2	2	2
Correcting Tests/Homework	3	3	3	3
Holding Extra Classes	4	4	4	4
Planning and Preparation for Class	5	5	5	5

Table 3.5.19 shows that almost all the teachers reported the use of language and mathematics textbook in the classroom while teaching. But in the case of use of mathematics, textbook lesser percentage of teachers reported using it. In all the districts about 20 per cent of the teachers use specially prepared materials for teaching language and mathematics. In-service training programmes should concentrate on developing and using such materials.

Table 3.5.19: Use of Text Books and Teaching Material

District	Options	Language			Maths		
		M	F	T	M	F	T
Hissar	Textbooks	95.00	88.80	90.60	77.50	78.60	78.30
	Specially Prepared materials	05.00	10.20	08.70	22.50	21.40	21.70
	Do not teach these subjects	00.00	00.00	00.00	00.00	00.00	00.00
Jind	Textbooks	83.30	93.90	88.30	73.10	82.70	77.70
	Specially Prepared materials	15.70	06.10	11.20	26.90	16.30	21.80
	Do not teach these subjects	00,00	00.00	00,00	00.00	00.00	00.00
Kaithal	Textbooks	91.50	93.30	92.40	85.10	86.70	85.90
	Specially Prepared materials	08.50	06.70	07.60	14.90	13.30	14.10
	Do not teach these subjects	00.00	00.00	00.00	00.00	00.00	00.00
Sirsa	Textbooks	90.00	93.10	92.00	90.00	84.70	86.60
	Specially Prepared materials	10.00	06.90	08.00	10 00	15.30	13.40
	Do not teach these subjects	00,00	00.00	00.00	00.00	00.00	00.00

The teaching material used by the teachers was mostly provided by the school in all the four districts. About one-third of the teachers reported using self-prepared material.

There are only 2 to 9 per cent teachers reporting use of student's prepared teaching material. See Table 3.5.20.

Table 3.5.20: Teachers Reporting Preparation of Teaching Material

District	Preparation of Teaching Materials	Total Teachers (Genderwise)			Teacher (Area Wise)	
		Male	Female	Total	Rural	Urban
HISSAR	Self	37.1	23.7	27.3	26.6	29.4
	Students	2.9	10.8	8.6	2.1	26.5
	Provided by school	54.3	60.2	58.6	63.8	44.1
	Any other	5.7	5.4	5.5	6.4	0.0
JIND	Self	33.3	21.3	28.0	28.3	26.1
	Students	4.3	0.0	2.4	2.8	0.0
	Provided by school	58.1	74.7	65.5	64.8	69.6
	Any other	4.3	4.0	4.2	4.1	4.3
KAITHAL	Self	6.8	51.2	28.2	20.9	55.6
	Students	2.3	0.0	1.2	1.5	0.0
	Provided by school	84.1	43.9	64.7	71.6	38.9
	Any other	6.8	4.9	5.9	6.0	5.6
SIRSA	Self	48.6	32.3	30.1	51.4	0.0
	Students	2.9	8.1	6.2	4.2	12.0
	Provided by school	45.7	48.4	47.4	41.7	64.0
	Any other	2.9	11.3	8.2	2.8	24.0

Table 3.5.21: Use of Textbooks and Teaching Material

District	Text Used	Total
Hissar	Read and Explain from textbooks	94.20
	Ask children to read aloud	94.90
	Ask children to read from the textbook on their own	92.00
	Assign home work from textbook	98.60
	Do not use textbooks at all	01.40
Kaithal	Read and Explain from textbooks	97.10
	Ask children to read aloud	95.10
	Ask children to read from the textbook on their own	96.60
	Assign home work from textbook	99.00
	Do not use textbooks at all	01.50
Jind	Read and Explain from textbooks	93.50
	Ask children to read aloud	96.70
	Ask children to read from the textbook on their own	96.70
	Assign home work from textbook	8.90
	Do not use textbooks at all	02.20
Sirsa	Read and Explain from textbooks	95.50
	Ask children to read aloud	89.30
	Ask children to read from the textbook on their own	86.60
	Assign home work from textbook	97.30
	Do not use textbooks at all	14.30

This is a strange revelation as these textbooks are prescribed for covering the syllabus at the primary level (Table 3.5.21). Only in the district of Sirsa some teachers reported not using the textbooks at all. The textbook is used to read and explain the text by the teacher or she reported asking children to read aloud on their own. Home tasks were also assigned from the textbooks.

Home Assignment

In all the districts teachers reported giving home work to children regularly. In Kaithal all the teachers reported the same. Almost all the teachers reported, giving homework in mathematics and language to the pupil which is in confirmation to that reported by students. For details see the Table 3.5.22.

Table 3.5.22: Distribution of Teachers Giving Homework

District	Homework Given	No. of Teacher
		Total
HISSAR	Regularly	94.9
	Sometimes	3.6
	Not at all	0.7
JIND	Regularly	98.1
	Sometimes	1.0
	Not at all	0.5
KAITHAL	Regularly	100.0
	Sometimes	0.0
	Not at all	0.0
SIRSA	Regularly	96.4
	Sometimes	2.7
	Not at all	0.9

Table 3.5.23: Distribution of Teachers Giving Homework in Mathematics in Terms of Number of Sums.

District	Number of Sums	Genderwise			Locationwise	
		Male	Female	Total	Rural	Urban
Hissar	0	00.00	05.10	03.60	01.90	08.70
	1-3	00.00	06.00	04.20	03.90	03.60
	4-6	17.50	30.60	26.80	25.30	31.50
	7-9	07.50	08.20	08.00	07.80	08.60
	10-15	75.00	49.90	57.00	61.20	45.80
Jind	0	04.60	08.20	06.30	06.40	06.10
	1-3	02.80	04.10	03.40	03.40	03.00
	4-6	19.40	34.60	26.70	24.80	37.30
	7-9	05.50	02.00	03.90	03.70	00.00
	10-15	67.60	49.00	58.90	59.60	54.50
Kaithal	0	04.30	04.40	04.30	04.10	05.30
	1-3	02.10	11.10	06.60	05.40	10.60
	4-6	17.00	35.60	26.10	24.70	31.60
	7-9	12.80	17.80	15.20	13.70	21.10
	10-15	63.90	31.10	47.90	52.00	31.60
Sirsa	0	00.00	01.40	00.90	01.10	00.00
	1-3	02.50	09.80	07.20	07.90	04.00
	4-6	13.00	50.00	42.90	44.70	36.00
	7-9	10.00	06.90	08.10	04.50	20.00
	10-15	55.00	32.00	40.20	40.00	40.00

The subjectwise assignment given in language and mathematics reveals that in mathematics about 50 per cent teachers reported giving 10-15 sums to the pupils in the form of home assignments in Hissar and Jind and one third in Sirsa and Kaithal. There are about 5 per cent teachers in Hissar, Jind and Kaithal who reported absence of the practice of giving home assignments in mathematics. In all the four districts more female teachers reported giving home assignments than their counterparts in the schools in mathematics except when it pertains to giving 10-15 sums or 7-9 sums in Jind and Kaithal.

Table 3.5.24: Distribution of Teachers Giving Homework in Language in terms of number of pages

	No of Pages	Genderwise			Areawise	
		Male	Female	Total	Rural	Urban
HISSAR	Zero	0.0	3.1	2.2	1.0	5.7
	One	20.0	34.7	30.4	28.2	37.1
	Two	57.5	42.9	47.1	47.6	45.7
	Three	17.5	10.2	12.3	12.6	11.4
	Four	0.0	6.1	4.3	5.8	0.0
	Five and more	5.0	3.0	3.6	4.8	0.0
JIND	Zero	3.7	0.0	1.9	2.3	0.0
	One	37.0	41.8	39.3	42.8	21.2
	Two	26.9	33.7	30.1	28.9	36.4
	Three	16.7	9.2	13.1	9.8	30.3
	Four	13.0	6.1	9.7	9.8	9.1
	Five and more	2.8	9.2	5.7	10.0	3.0
KAITHAL	Zero	2.1	2.2	2.2	2.7	0.0
	One	38.3	37.8	38.0	37.0	42.1
	Two	44.7	44.4	44.6	42.5	52.6
	Three	8.5	6.7	7.6	8.2	5.3
	Four	2.1	6.7	4.3	5.6	0.0
	Five and More	4.3	2.2	3.3	4.1	0.0
SIRSA	Zero	2.5	0.0	0.9	1.1	0.0
	One	35.0	43.1	40.2	39.1	44.0
	Two	27.5	30.6	29.5	27.5	36.0
	Three	22.5	19.4	20.5	23.0	12.0
	Four	7.5	2.8	4.5	5.7	0.0
	Five and more	5.0	4.2	4.6	3.4	8.0

In language the majority of the teachers reported giving two pages of homework in Hissar and Kaithal while in Jind and Sirsa the number of pages was reported to be one. A few percentage of teachers also reported not giving any assignment at all in language. See Table 3.5.24.

Distribution of Teachers Reporting No Classroom Supervision

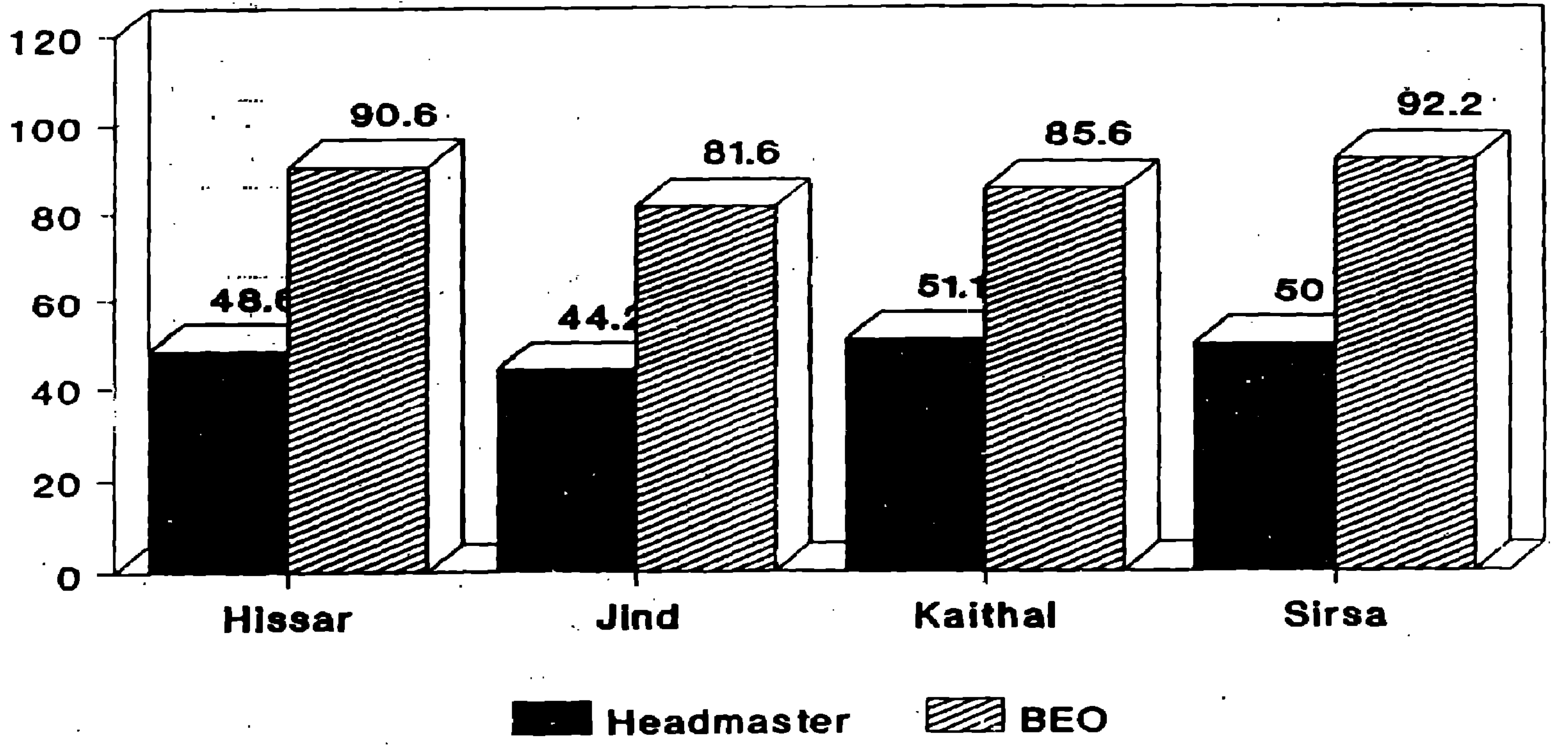


Fig. 45

Classroom Supervision

About 50 per cent of the teachers reported that the head teacher makes supervising visits to their classes. But the officials like BEO, DEO inspect the schools only occasionally. Table 3.5.25 shows the average frequency of these visits. Their main tasks seem to concentrate on school administration, evaluation of teachers and creating funds from community, if available. This is a pointer to the attitude of officials towards school improvement. The field notes suggested that these persons were just figureheads with power but no real inclination was shown by them for improving standards.

Table 3-5-25: Distribution of Teachers Reporting No Classroom Supervision

District	Headmaster	B.E.O.
HISSAR	48.6	90.6
JIND	44.2	81.6
KAITHAL	51.1	85.9
SIRSA	50.0	92.0

Teachers' Status in the School

About one-third of the teachers reported that their being in the present school was due to the compulsory transfer policy of the state government. The analysis of field notes written by the investigators also reflect this fact. Among the female teachers another dimension that emerges is the personal and family reason to be the main cause for being in the school. It is a matter of grave concern that very few teachers were reported to be in that present school because of greater job satisfaction. This has a direct implication for future policy on motivating the teachers for this profession. For details see the Table 3.5:26.

Table 3.5.26: Distribution of Teachers According to Reasons for being in the Present School

Districts	Reasons	Number of Teachers		
		Male	Female	Total
Hissar	Personal and Family	22.50	38.80	34.10
	Compulsory Transfer	40.00	31.60	34.10
	Higher Salary and Benefits	02.50	01.00	01.40
	Greater Job Security	00.00	07.10	05.10
	Greater job satisfaction	15.00	10.20	11.60
	Less Work Load & Responsibility	05.00	02.00	02.90
	Other reasons	15.00	09.20	10.90
Jind	Personal and Family	39.90	45.90	42.20
	Compulsory Transfer	39.80	25.50	33.00
	Higher Salary and Benefits	00.00	02.00	01.00
	Greater Job Security	00.90	03.10	01.90
	Greater job satisfaction	08.30	14.30	11.20
	Less Work Load & Responsibility	00.00	01.00	00.50
	Other reasons	12.00	08.20	10.10

Table 3.5.26a: Distribution of Teachers According to Reasons for being in the Present School

KAITHAL	Personal and Family	23.4	37.8	30.4
	Compulsory Transfer	38.3	31.1	34.8
	Higher Salary and Benefits	2.1	2.2	2.3
	Greater Job Security	6.4	2.2	4.3
	Greater job satisfaction	12.8	8.9	10.9
	Less Work Load & Responsibility	2.1	0.0	1.1
	Other reasons	14.9	17.9	16.3
SIRSA	Personal and Family	27.5	34.7	32.1
	Compulsory Transfer	52.5	30.6	38.4
	Higher Salary and Benefits	0.0	9.7	6.3
	Greater Job Security	0.0	9.7	6.3
	Greater job satisfaction	10.0	6.9	8.0
	Less Work Load & Responsibility	0.0	0.0	0.0
	Other reasons	10.0	8.3	8.9

Table 3.5.27: Distribution of Teachers According to the Extent of Help Received from Head Teacher/Principal

District	Categories	Genderwise			Areawise	
		Male	Femal	Total	Rural	Urban
HISSAR	Not Applicable	37.5	22.4	26.8	29.2	22.8
	Very Helpful	40.0	46.9	44.9	42.7	51.4
	Somewhat Helpful	5.0	24.5	18.8	18.4	20.2
	Not Helpful	17.5	5.1	8.4	9.7	5.7
JIND	Not Applicable	23.1	18.4	20.9	23.7	18.2
	Very Helpful	49.1	37.8	43.7	47.4	24.2
	Somewhat Helpful	19.4	30.6	24.8	22.5	36.4
	Not Helpful	8.3	13.3	10.6	6.4	22.1
KAITHAL	Not Applicable	36.2	17.8	27.2	30.1	15.8
	Very Helpful	34.0	40.0	37.0	31.5	57.0
	Somewhat Helpful	25.5	31.1	28.3	31.6	15.8
	Not Helpful	4.3	11.1	7.6	6.8	10.5
SIRSA	Not Applicable	32.5	8.7	17.9	18.4	16.0
	Very Helpful	32.5	70.8	57.1	57.5	56.0
	Somewhat Helpful	27.5	16.7	20.5	19.5	24.0
	Not Helpful	7.5	2.8	4.5	4.6	4.0

The head teacher is considered to be the manager of the school and his/her relationship with the teacher has a direct impact on the teaching-learning process. The data reveals that a very few teachers reported them to be not helpful. It seems almost all the teachers are satisfied with the prevailing situation in the school. For details see Table 3.5.27. The field note suggests a contradictory viewpoint of the picture. The teachers strictly unofficially expressed their dissatisfaction with the attitude of the head in terms of over-authoritarianism, lack of concern for personal problems and no involvement in the teaching-learning process. Some of them reported that keeping records up-to-date and pleasing the administration seem to be the major pre-occupations of the head.

Table 3.5.28: Distribution of Teachers According to the Extent of Help Received from the Block Education Officer

District	Categories	Number of Teachers		
		Male	Female	Total
HISSAR	Not Applicable	0.0	1.0	0.7
	Very Helpful	20.0	28.6	26.1
	Somewhat Helpful	50.0	58.2	55.8
	Not Helpful	30.0	12.2	17.3
JIND	Not Applicable	1.9	0.0	1.0
	Very Helpful	30.6	21.4	26.2
	Somewhat Helpful	35.2	44.9	39.8
	Not Helpful	32.4	33.7	33.0
KAITHAL	Not Applicable	0.0	0.0	0.0
	Very Helpful	34.0	35.6	34.8
	Somewhat Helpful	57.4	51.1	54.3
	Not Helpful	8.5	13.3	10.9
SIRSA	Not Applicable	2.5	0.0	0.9
	Very Helpful	22.5	26.4	25.0
	Somewhat Helpful	45.0	58.3	53.6
	Not Helpful	30.0	15.3	20.5

The BEO seems to be helpful to teachers. Only in the districts of Jind one-third teachers reported them as not being helpful. Except for the district of Kaithal the male teachers reported BEOs as helpful. However, the nature of help should be studied in detail.

Table 3.5.29: Distribution of Teachers According to the Extent of Help Received from the Other Primary Teachers

District	Frequency	Genderwise			Areawise	
		Male	Female	Total	Rural	Urban
HISSAR	Not Applicable	17.5	11.2	13.0	16.5	2.9
	Very Helpful	37.5	41.8	40.8	35.9	54.3
	Somewhat Helpful	27.5	43.9	39.1	38.8	40.0
	Not Helpful	17.5	3.1	7.2	8.7	2.9
JIND	Not Applicable	2.8	1.0	1.9	2.3	0.0
	Very Helpful	63.0	60.2	61.7	67.1	33.3
	Somewhat Helpful	18.5	33.7	25.7	20.8	51.5
	Not Helpful	15.8	5.1	10.7	9.9	15.2
KAITHAL	Not Applicable	17.0	4.4	10.9	13.7	0.0
	Very Helpful	46.8	53.3	50.0	45.2	68.4
	Somewhat Helpful	27.7	31.9	29.3	31.5	21.1
	Not Helpful	8.5	11.1	9.8	9.6	10.5
SIRSA	Not Applicable	7.5	1.4	3.6	4.6	0.0
	Very Helpful	47.5	63.9	58.0	57.5	60.0
	Somewhat Helpful	30.0	25.0	26.8	26.4	28.0
	Not Helpful	15.0	9.7	11.6	11.5	12.0

Support for teaching is necessary to make the teaching-learning process successful an solving classroom problems. In the school setting the data shows that primary teachers by an large help each other.

Table 3.5.30: Teachers Perference for school Type for Education of Their Children

District	Kind of School	Genderwise			Areawise		
		Male	Female	Total	Rural	Urban	Total
HISSAR	Government	75.0	65.3	68.1	70.4	60.0	68.1
	Private (Aided)	5.0	11.2	9.4	9.7	8.6	9.4
	Private (Unaided)	2.3	9.2	7.2	6.8	8.6	7.2
	No special preference	17.5	14.2	15.2	12.6	22.9	15.2
JIND	Government	73.1	61.2	67.5	72.3	42.4	67.5
	Private (Aided)	13.9	11.2	12.6	10.4	24.2	12.6
	Private (Unaided)	3.7	10.2	6.8	5.8	12.1	6.8
	No special preference	9.4	17.3	13.1	11.6	21.2	13.1
KAITHAL	Government	93.6	57.8	76.1	82.2	52.6	76.1
	Private (Aided)	0.0	17.8	8.7	5.5	21.1	8.7
	Private (Unaided)	2.1	17.8	9.8	8.2	15.8	9.1
	No special preference	4.3	6.7	5.4	4.1	10.5	5.4
SIRSA	Government	67.5	52.8	58.0	55.2	68.0	58.0
	Private (Aided)	20.0	18.1	18.8	18.4	20.0	18.8
	Private (Unaided)	2.5	6.9	5.4	5.7	4.0	5.4
	No special preference	10.0	22.2	17.9	20.7	8.0	17.4

When asked about the type of school they would choose for their own children almost three-fourth choose the government schools. This could be because of the stable system of education of children without spending too much money (see Table 3.5.30). Lesser mothers and teaches teaching in urban area however, preferred these schools. Castewise teachers analysis also shows preference for these schools.

Table 3.5.30a: Teachers Perference for School Type for Education of Their Children

District	Kind of School	Castewise			
		SC	ST	OBC	Other
HISSAR	Government	85.7	100.	62.5	68.1
	Private (Aided)	14.3	0.0	12.5	8.8
	Private (Unaided)	0.0	0.0	6.3	8.0
	No special preference	0.0	0.0	18.8	15.0
JIND	Government	71.4	0.0	70.6	66.9
	Private (Aided)	14.3	0.0	0.0	13.7
	Private (Unaided)	7.1	0.0	5.9	6.9
KAITHAL	Government	100.	0.0	100.	71.1
	Private (Aided)	0.0	0.0	0.0	10.5
	Private (Unaided)	0.0	0.0	0.0	11.8
	No special preference	0.0	0.0	0.0	6.6
SIRSA	Government	75.0	100.	70.0	53.9
	Private (Aided)	16.7	0.0	10.0	20.2
	Private (Unaided)	0.0	0.0	0.0	6.7
	No special preference	8.3	0.0	20.0	19.1

Table 3.5.31: Percentage of Head Teachers Reporting Different Teaching Related Activities Maintained by the Teachers

District	Activities	Genderwise			Areawise	
		M	F	Total	R	U
Hissa	Checking Diaries/Class notes of teacher every week	88.2	89.3	88.9	86.8	100.
	Preparing Monthly tests	100.	100.	100.	100.	100.
	Evaluating results of monthly tests	100.	100.	100.	100.	100.
	Observation of classroom teaching and suggesting improvements	88.2	96.4	93.3	92.1	100.
	Checking Homework of Pupils	94.1	100.	97.8	97.4	100.
	Taking a decision on Pupils Promotion	94.1	85.7	88.9	89.5	85.7
	Holding Model classes to assist the teachers	94.1	78.6	84.4	84.2	85.7
Jind	Checking Diaries/Class notes of teacher every week	95.8	94.7	95.3	97.2	85.7
	Preparing Monthly tests	100.	100.	100.	100.	100.
	Evaluating results of monthly tests	100.	100.	100.	100.	100.
	Observation of classroom teaching and suggesting improvements	91.7	100.	95.3	97.2	85.7
	Checking Homework of Pupils	100.	100.	100.	100.	100.
	Taking a decision on Pupils Promotion	91.7	100.	95.3	97.2	85.7
	Holding Model classes to assist the teachers	91.7	94.7	93.0	97.2	71.4

Nearly all head teachers reported checking of diaries, preparing monthly tests, evaluating tests, observation of classroom teaching and giving model lessons (Table 3.5.31). This was not borne out by teachers responses since about half of the teachers reported no classroom supervision mentioned earlier. Moreover, spot checking by the baseline supervision staff showed that diaries were not being maintained by the teacher.

Table 3.5.31a: Percentage of Head Teachers Reporting Different Teaching Related Activities Maintained by the Teachers

District	Activities	Genderwise			Areawise	
		M	F	Total	R	U
Kaithal	Checking Diaries/Class notes of teacher every week	89.5	100.	93.1	92.0	100.
	Preparing Monthly tests	100.	100.	100.	100.	100.
	Evaluating results of monthly tests	100.	100.	100.	100.	100.
	Observation of classroom teaching and suggesting improvements	94.7	90.0	93.1	92.0	100.
	Checking Homework of Pupils	100.	100.	100.	100.	100.
	Taking a decision on Pupils Promotion	94.7	90.0	93.1	92.0	100.
	Holding Model classes to assist the teachers	78.9	90.0	82.8	84.0	75.0
Sirsa	Checking Diaries/Class notes of teacher every week	93.8	100.	96.6	96.0	100.
	Preparing Monthly tests	100.	100.	100.	100.	100.
	Evaluating results of monthly tests	93.8	100.	96.6	96.0	100.
	Observation of classroom teaching and suggesting improvements	87.5	69.2	79.3	80.0	75.0
	Checking Homework of Pupils	93.8	92.3	93.1	92.0	100.
	Taking a decision on Pupils Promotion	100.	100.	100.	100.	100.
	Holding Model classes to assist the teachers	6.3	7.7	6.9	72.0	75.0

The head teachers also reported observation of classroom for teacher evaluation. This is class contradictory to the comments of the teachers. (Table 3.5.32).

Table 3.5.32: Methods Used by Head Teachers for Evaluation

District	Methods of Evaluation	Option I (T)	Option II (T)	District	Methods of Evaluation	Option I (T)	Option II (T)
Hissar	Observation of Classes	72.7	15.2	Kaithal	Observation of Classes	75.0	0.0
	Performance of Students on tests and Exam	12.1	33.3		Performance of Students on tests and Exam	20.8	41.7
	Checking classnotes Prepared by teachers	9.1	12.1		Checking classnotes Prepared by teachers	4.2	20.8
	Reviewing Homework of students	6.1	30.3		Reviewing Homework of students	0.0	37.5
	Any other	0.0	9.1		Any other	0.0	0.0
Jind	Observation of Classes	70.7	4.9	Sirsa	Observation of Classes	86.2	3.4
	Performance of Students on tests and Exam	14.6	31.7		Performance of Students on tests and Exam	6.9	17.2
	Checking classnotes Prepared by teachers	0.0	36.6		Checking classnotes Prepared by teachers	6.9	24.1
	Reviewing Homework of students	14.6	24.4		Reviewing Homework of students	0.0	51.7
	Any other	0.0	2.4		Any other	0.0	3.4

The head teachers considered student motivation to be the most important factor for school performance. It was followed by attitude and commitment of parents and attitude and commitment of teachers. The head teacher considered himself/herself to be the least important factor (Table 3.5.33). This indicates a tendency, to shirk their responsibility for low achievement and to pass the blame for it on others.

Table 3.5.33: Ranking of Important Factors for School Performance

District	Factors	Rank	Distric	Factors	Rank
Hissar	The Attitude and commiment of Teacher	3	Kaithal	The Attitude and commiment of Teacher	2
	The attitude and cooperation of Parents	2		The attitude and cooperation of Parents	5
	The motivation of students	1		The motivation of students	1
	The ability and motivation of Head teacher	5		The ability and motivation of Head teacher	4
	The assistance of the BEO/SDI	4		The assistance of the BEO/SDI	3
Jind	The Attitude and commiment of Teacher	2	Sirsa	The Attitude and commiment of Teacher	2
	The attitude and cooperation of Parents	3		The attitude and cooperation of Parents	1
	The motivation of students	1		The motivation of students	5
	The ability and motivation of Head teacher	5		The ability and motivation of Head teacher	3
	The assistance of the BEO/SDI	4		The assistance of the BEO/SDI	4

Teachers' Estimate of Pupils Competency

The sample teachers when asked to give an opinion on what percentage of pupils would have mastered the minimum expectation in terms of learning achievement stated that more than half (between 50-55) of the class are expected to do so. However, the actual class achievement in a test administered by the investigator shows a much lower achievement. The Table below shows sample teachers expectation of the pupils in a specific skills.

Table 3.5.35: Teachers Estimate of Pupils Competency

Skills	Expectation	Hissar	Jind	Kaithal	Sirsa
Recognising all Letters of Alphabets	Less than 40%	18.90	12.90	09.80	16.00
	41 - 79%	56.80	57.00	74.50	66.00
	80% and above	24.30	30.10	15.70	18.00
Taking Simple Dictation of nown words	Less than 40%	12.20	12.00	13.00	23.00
	41 - 79%	67.10	62.00	68.50	51.20
	80% and above	20.70	26.10	18.50	25.60
Writing Simple Sentences	Less than 40%	05.20	15.90	05.70	07.00
	41 - 79%	58.40	46.60	67.90	65.10
	80% and above	36.40	37.50	26.40	27.90
Reading text and answering questions on it	Less than 40%	06.90	03.50	06.10	07.10
	41 - 79%	62.80	65.20	65.30	69.00
	80% and above	40.30	30.40	28.60	23.80
riting smal compositing on a given topic	Less than 40%	07.70	11.40	10.00	12.50
	41 - 79%	52.60	49.50	60.00	62.50
	80% and above	39.70	39.60	30.00	25.00

Nearly all the Class V students reported that they had class teacher. But in rural schools the students reported that the percentage of teachers coming regularly ranged from 50 to 70 per cent. In Sirsa however, it is reported that the attendance of teachers was less than that of other districts.

Table 3.5.37: Demand on Head Teachers Time by Official Non-School Activities

% Pupils responding in affirmative	Hissar		Jind		Kaithal		Sirsa	
	R	U	R	U	R	U	R	U
Having Class Teacher	99.20	99.20	99.50	100.00	99.80	100.00	88.80	92.70
Teacher Comes Regularly (Everyday)	69.60	75.00	71.70	54.00	66.70	61.50	43.00	62.40

Besides attending to academic duties, head teachers have to attend to a number of other jobs. The above Table shows the nature of jobs. The head teachers reported that they spent approximately 8 to 12 days in a month on these jobs.

Table 3.5.38: Teachers Estimate of Pupils Complency

Activity	No. of Days Spent in a Month			
	Hissar	Jind	Kaithal	Sirsa
General Administration	3	4	3	3
Block Level Meetings	1	1	1	2
Public Functions	1	4	1	2
Other Activities	2	3	2	2
Total Days Spent	8	12	7	9

SECTION VI

School Characteristics

This chapter deals with different school characteristics which have a direct bearing on the overall quality of primary education. It discusses overall profile of the sampled schools and is divided into different sections reflecting present scenario of school facilities, management and administrative aspects.

Background Features

In all 145 schools were selected in the sample from the four districts. It consisted of 40 schools from Hissar and 35 each from Kaithal, Jind and Sirsa. The majority of the schools were found to be managed by the State Government. However, in the district of Hissar and Jind few schools were private aided and unaided type (Table 3.6.1).

Table 3.6.1: Type of School Mangement

	Hissar	Jind	Kaithal	Sirsa
Panchayat	00.00	02.90	00.00	00.00
State Govt.	97.50	88.00	100.00	100.00
Municipality Unaided	0.00	00.00	00.00	00.00
Private Aided	02.50	02.90	00.00	00.00
Private Unaided	00.00	05.70	00.00	00.00

Table 3.6.2 below shows that the primary school system is relatively younger in Kaithal than in Hissar, Jind and Sirsa. There are very few schools which have been established during pre-independence era and in the recent years. Two-third of the schools were found between year 1943-1984 and rest of the schools are either before 1944 or after 1984.

Table 3.6.2: Age of School in Years

	Hissar	Jind	Kaithal	Sirsa
Over 50	10.00	11.60	08.70	45.80
10 - 50	75.00	68.50	85.70	74.20
Under 10	15.00	19.90	05.60	20.00

The medium of instruction in all the schools is found to be Hindi and the highest grade in above 90 per cent of the school is Class V. A few schools had middle classes attached.

Table 3.6.3: Schools with Highest Grades

	Hissar	Jind	Kaithal	Sirsa
Class 5	95.00	97.10	88.60	94.30
Class 6/8	05.00	02.90	11.40	05.70

Table 3.6.4 shows that there are about 20 per cent schools with pre-schools attached with them. The most common form of pre-school system in these schools is found to be the Balwadi. But in the district of Kaithal there are more schools having LKG and UKG as compared to Balwadi.

Table 3.6.4: Pre-school Facilities in Schools

	Hissar	Jind	Kaithal	Sirsa
With pre-school	07.50	20.00	20.00	20.00
Balwadi	07.50	14.30	02.90	20.00
With LKG/ UKG	00.00	05.70	17.10	00.00

The distance of the sampled schools to the schools with higher grade influences the excess of the community to a school. The field notes suggest that parents are likely to choose a school in the early years if the schools with higher grades are located in the close vicinity. Table 3.6.5 indicates that the primary and upper-primary schools are within the reach of majority of pupils. However, higher secondary and traditional schools are not within easy access.

Table 3.6.5: Distance in Kilometres of High/Higher/Senior Secondary Schools from the Primary School

Distance	HISAR	JIND	KAITHAL	SIRSA
0 - 5	75.50	68.60	62.80	48.60
6 - 10	07.50	20.10	23.00	42.80
11 - 15	05.00	08.70	02.90	08.60
16 - 20	07.05	02.90	05.80	00.00
21 - 25	05.00	00.00	00.00	00.00
26 - 30	00.00	00.00	05.80	00.00

The school headmaster was asked to provide information about the distance of their school from the nearest high/higher/senior secondary schools. The data reveals that nearly one third schools are within 5 km distance (3.6.6).

Table 3.6.6: Location of Schools

Name of the Place	Distance from the school (in Kms	HISAR	JIND	KAITHAL	SIRSA
I. Nearest Anganwadi/ Balwadi/ Pre-School	1.1-5	45.0	51.4	37.2	51.5
	2. 6 - 10 and above	2.5	2.9	5.7	8.7
	3. Negligible distance	52.5	45.7	57.1	60.0
II. Nearest Primary School	1.1-2	62.5	42.9	57.0	54.3
	2. 3 and above	17.5	18.0	19.0	28.7
	3. Negligible distance	20.0	37.1	25.7	17.1
III Nearest U.P. School	1 Negligible distance	37.5	37.1	22.9	22.9
	2. 1-2	35.0	42.9	28.5	28.5
	3. 3-4	17.5	17.1	20.0	22.9
	4. 5 and above	10.0	2.9	28.7	25.7
IV. Nearest High School/ Hr. Sec School	1. Negligible	30.0	14.3	11.4	17.1
	2. 1-5	45.0	54.3	51.5	31.5
	3 6 and above	25.0	31.4	37.1	51.4
V Block Headquarter	1. 1-10	35.0	51.4	51.4	34.3
	2 11-20	30.0	42.9	31.5	28.6
	3 21 and above	35.0	5.7	17.1	37.1
VI. Nearest Traditional School (Madrasa etc.)	1. Negligible	65.0	51.4	77.1	85.7
	2 1-5	7.5	8.6	0.0	2.9
	3. 6-10	7.5	5.7	0.0	2.9
	4 10 and above	20.0	34.4	22.9	8.5

Instructional Time

The number of working days scheduled for the academic session in a school is an indicator of effectiveness of the teaching and learning process. Though apparently the working days scheduled for all the schools is almost same but a variation is found in some of the schools. In one of the school in the district of Jind the number of scheduled working days are below 100. The same case was reported in the two schools of Sirsa. In Kaithal the number of scheduled days are in the range of 151-175 days in one of the schools. In rest of the schools a similar trend is found. The number of scheduled working days varies from 201-250 days. The schools with 226-250 working days are found maximum in district of Hissar (82.5) followed by Jind (80.9), Kaithal (71.4) and Jind (67.1). The most striking feature of these schools is the variation with regard to scheduled days within the same district though all are under the same district educational administration. It seems that only 60-80 per cent of the schools from the four districts are following the same academic calender.

Table 3.6.7 shows that the majority of the schools in the four districts are in close agreement with regard to opening and closing time. During the summer majority of the schools open at 7 a.m. and close at 1 p.m. During the winter the time schedule get changed by two hours. The schools open at 9 a.m. and close at 3 p.m. About 90 per cent of the schools provide a lunch break of 30 minutes and few schools provide short lunch break of 10 to 20 minutes.

Table 3.6.7: School Instructional Mean Time

	HISAR	JIND	KAITHAL	SIRSA
Total Working Days	232	227	230	208
School Working Hours				
Opening Time (Summer)	7 am	7 am	7 am	7 am
Opening Time (Winter)	9am	9am	9am	9am
Closing Time (Summer)	1pm	1pm	1pm	1pm
Closing Time (Winter)	3pm	3pm	3pm	3pm
Lunch Break (Minutes)	30.00	30.00	30.00	30.00
Instructional Time				
Minutes per period	21.87	22.17	16.00	22.87
Periods per day	04.42	04.40	02.14	04.82

Time Schedule

Table 3.6.8 shows that during the winter season 90 per cent of the schools of the four districts open at 9 a.m. But there is variation by the closing time of these schools out of these. 137 schools (81.8%) of the schools close at 4 p.m. In rest of schools different timing were observed. There is also variation with regard to daily working hours of the school. It ranges from 5 to 7 hours. A few number of schools open in the afternoon and close in evening. Five such schools were found in the districts of Hissar (2), Jind (1) and Kaithal (2). Details are provided in Table 3.6.8.

Table 3.6.8: School Timings: Winter Session (November - February)

	HISAR	JIND	KAITHAL	SIRSA
Opening Time				
7 am	2 (01.30)	1 (02.50)	NIL	1 (02.90)
8 am	1 (00.69)	NIL	1 (02.90)	NIL
9 am	137 (94.60)	37 (92.50)	32 (91.40)	34 (97.50)
12 pm	3 (03.40)	2 (05.00)	2 (05.70)	NIL
Closing Time				
12 pm	2 (01.30)	1 (02.50)	1 (02.90)	NIL
2 pm	1 (00.70)	NIL	NIL	NIL
3 pm	24 (16.60)	10 (25.00)	2 (14.30)	3 (08.60)
4 pm	112 (77.20)	27 (67.50)	27 (71.20)	31 (88.60)
5 pm	5 (03.40)	2 (05.00)	2 (05.70)	NIL
6 pm	1(00.70)	NIL	NIL	1 (02.90)

Teaching Periods

Table 3.6.9 shows that in about 50 per cent of schools there were no scheduled period and in some of schools where periods are held the number varies from 1 to14. The schools with 8 periods were maximum in almost all the schools where periods were practiced. There is marginal variation in almost all the four districts.

With regard to distribution of each period held, it was revealed that in the schools where periods were held 50 per cent schools had the length of the period as 40 minutes and the rest of schools fell in the category of time period 30-40 minutes. A few schools were with 60 minutes period (See Table 3.6.9).

Table 3.6.9: Number and Duration of Period Held

	All	HISAR	JIND	KAITHAL	SIRSA
Number of Periods					
Zero	69 (47.59)	18 (45.00)	16 (45.70)	21 (60.00)	14 (40.00)
6	3 (02.07)	1 (02.50)	00 (00.00)	00 (00.00)	2 (05.70)
7	9 (06.21)	2 (05.00)	3 (08.60)	3 (08.60)	1 (02.90)
8	47 (32.40)	14 (35.00)	11 (31.40)	10 (28.60)	12 (34.30)
9	5 (3.45)	5 (12.50)	00 (00.00	00 (00.00)	00 (00.00)
Duration of Periods					
Zero	71 (48.97)	18 (45.00)	16 (45.70)	21 (60.00)	16. (45.70)
30	2 (01.38)	1 (02.50)	00 (00.00)	1 (02.90)	00 (00.00)
35	4 (02.75)	3 (07.50)	00 (00.00)	00 (00.00)	1 (02.90)
40	59 (40.69)	17 (42.50)	17 (48.60)	11 (31.40)	14 (40.00)
45	6 (04.13)	00 (00.00)	1 (02.90)	2 (05.70)	3 (08.60)
50	1 (00.69)	00 (00.00)	1 (02.90)	0 (00.00)	00 (00.00)
60	2 (01.38)	1 (02.50)	00 (00.00)	00 (00.00)	1 (02.90)

NB: Figures in parenthesis indicates percentages

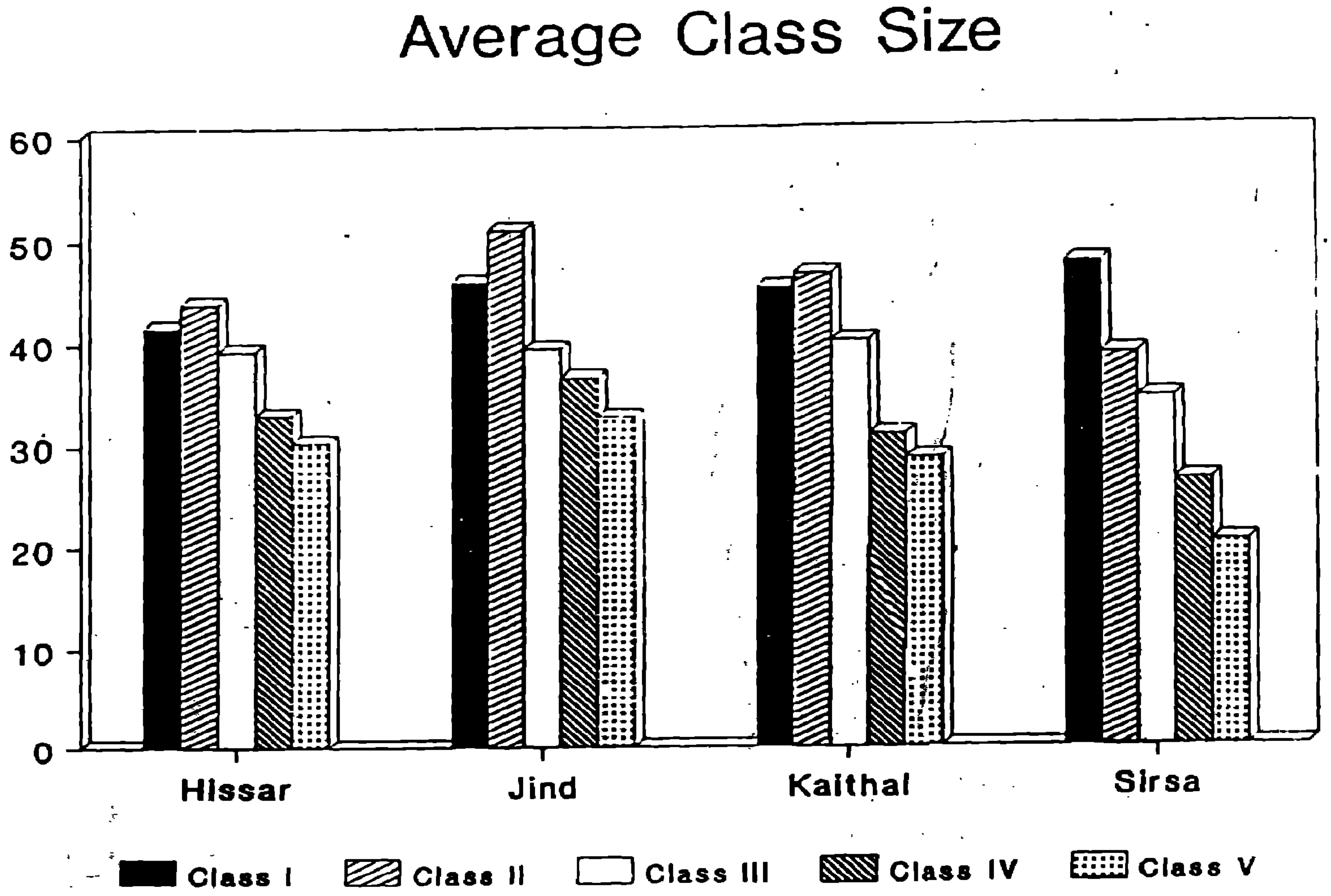

Average Class Size
60
50
40
30
20
10
0
Hissar
Jind
Kaithal
Sirsa
■ Class I
▨ Class II
☐ Class III
▧ Class IV
▦ Class V

Fig. 46

For effective teaching learning process, time scheduling is essential. It facilitates the management as well as teaching process in the classroom situation. However, in the study, it was found that in only about 50 per cent of schools in all the four districts had time table (Table 3.6.10). Though about 50 per cent of the sampled schools had a time table only 14-31 per cent of them actually followed it.

Table 3.6.10: Teaching Time Table

	HISAR	JIND	KAITHAL	SIRSA
Schools with time table	23 (57.50)	19 (54.30)	15 (42.90)	18 (51.40)
Schools following time table	7 (17.50)	9 (25.70)	5 (14.30)	11 (31.40)

School and Class Size

The school enrolment size data (Table 3.6.11) reveals that in most of the cases the number of pupils handled by teachers in one or other class are more than the prescribed teacher pupils ratio which comes to be 1:40. The average class size is found to be larger in classes one and two whereas in Class III, four and five it is around the prescribed limit or slightly lower (Table 3.6.11).

Table 3.6.11: Average Class Size

Class	Hissar	Jind	Kaithal	Sirsa
I	41.60	46.00	45.50	47.80
II	43.90	51.00	46.80	38.80
III	39.30	39.50	40.20	34.60
IV	33.00	36.70	31.00	26.50
V	30.30	32.80	28.70	20.40

Enrolment

The percentage enrolment of girls is higher than boys in Sirsa and Jind while reverse is the case in Hissar and Kaithal. In Hissar the percentage enrolment of girls declined progressively from Class I to 5. In Jind and Sirsa this trend is not discernible. The girls enrolment is reported nearing their population proportion. It may be due to the special drive for girls education. The reliability of the record is however, doubtful because the percentage of girls in dropouts was much higher than boys (Table 3.4.1). The percentage enrolment in rural and urban schools was according to the population proportion in the districts according to 1991 census.

Table 3.6.12: Percentage Enrolment (1993-1994) In School (Genderwise)

Districts	Class	Boys	Girls
HISSAR	I	48.1	51.9
	II	46.3	53.7
	III	51.8	48.2
	IV	53.2	46.8
	V	54.5	45.5
	Total	51.4	49.6
JIND	I	48.7	51.3
	II	45.6	54.4
	III	51.4	48.6
	IV	48.8	51.2
	V	48.5	51.5
	Total	48.4	51.6
KAIT-HAL	I	50.3	49.7
	II	50.6	49.4
	III	51.6	48.4
	IV	53.5	46.4
	V	55.7	44.3
	Total	51.9	48.1
SIRSA	I	40.5	59.5
	II	38.3	61.7
	III	41.7	58.3
	IV	42.6	57.4
	V	41.4	58.6
	Total	40.7	59.3

Looking at the enrolment figures shows that in Class I and II more girls are enrolled in all the three districts other than Kaithal. In classes III to V enrolment of boys is more than girls, except again in the district of Sirsa and Jind.

Looking at number of total children enrolled in the five classes shows the maximum number exist in Hissar followed by Jind and Kaithal. Comparisons with other districts the lowest are in Sirsa Table 3.6.13.

Table 3.6.13: Enrolment (1993-94) in Schools (Genderwise).

Districts	Class	Boys	Girls	Total
HISSAR	I	798	862	1660
	II	813	944	1757
	III	815	758	1573
	IV	702	618	1320
	V	659	550	1209
	Total	3787	3732	7519
JIND	I	784	826	1610
	II	807	964	1771
	III	694	656	1350
	IV	628	658	1286
	V	557	591	1148
	Total	3470	3795	7165
KAIT-HAL	I	800	792	1592
	II	826	808	1634
	III	725	681	1406
	IV	580	504	1084
	V	561	442	1003
	Total	3492	3227	6719
SIRSA	I	676	982	1668
	II	518	833	1351
	III	507	709	1216
	IV	393	529	922
	V	296	419	715
	Total	2390	3472	5862

Locationwise enrolment shows more children enrolled in rural areas as compared to the urban in all the districts. There is an increase in enrolment from Class I to II in the rural areas. The percentage enrolment in rural and urban schools was according to the population proportion in the districts according to 1991 census.

Table 3.6.14: Percentage Enrolment (1993-94) in Schools (Locationwise)

Districts	Class	Rural	Urban
HISSAR	I	75.6	24.4
	II	77.6	22.4
	III	77.9	22.1
	IV	79.0	21.0
	V	82.3	17.7
	Total	78.2	21.8
JIND	I	83.6	16.4
	II	84.8	15.2
	III	80.7	19.3
	IV	85.1	14.9
	V	83.4	16.6
	Total	83.6	16.4
KAIT-HAL	I	82.1	17.9
	II	83.2	16.8
	III	77.2	22.8
	IV	81.1	18.9
	V	80.3	19.7
	Total	81.0	19.0
SIRSA	I	78.7	21.3
	II	79.4	20.6
	III	79.6	20.4
	IV	79.1	20.9
	V	81.3	18.7
	Total	79.8	20.4

The enrolment figures showed a marked decrease in number from Class II to V in the rural areas. This was in agreement with the dropouts which also belong to these classes.

Table 3.6.15: Enrolment (1993-94) in Schools (Locationwise)

Districts	Class	Rural	Urban
HISSAR	I	1256	404
	II	1364	393
	III	1226	347
	IV	1043	277
	V	992	217
	Total	5881	1638
JIND	I	1346	264
	II	1502	269
	III	1090	260
	IV	1094	192
	V	958	190
	Total	5990	1166
KAIT-HAL	I	1308	284
	II	1356	273
	III	1086	320
	IV	880	204
	V	806	197
	Total	5436	1278
SIRSA	I	1312	355
	II	1073	278
	III	968	238
	IV	730	192
	V	582	133
	Total	4665	1196

Pupil Teacher Ratio

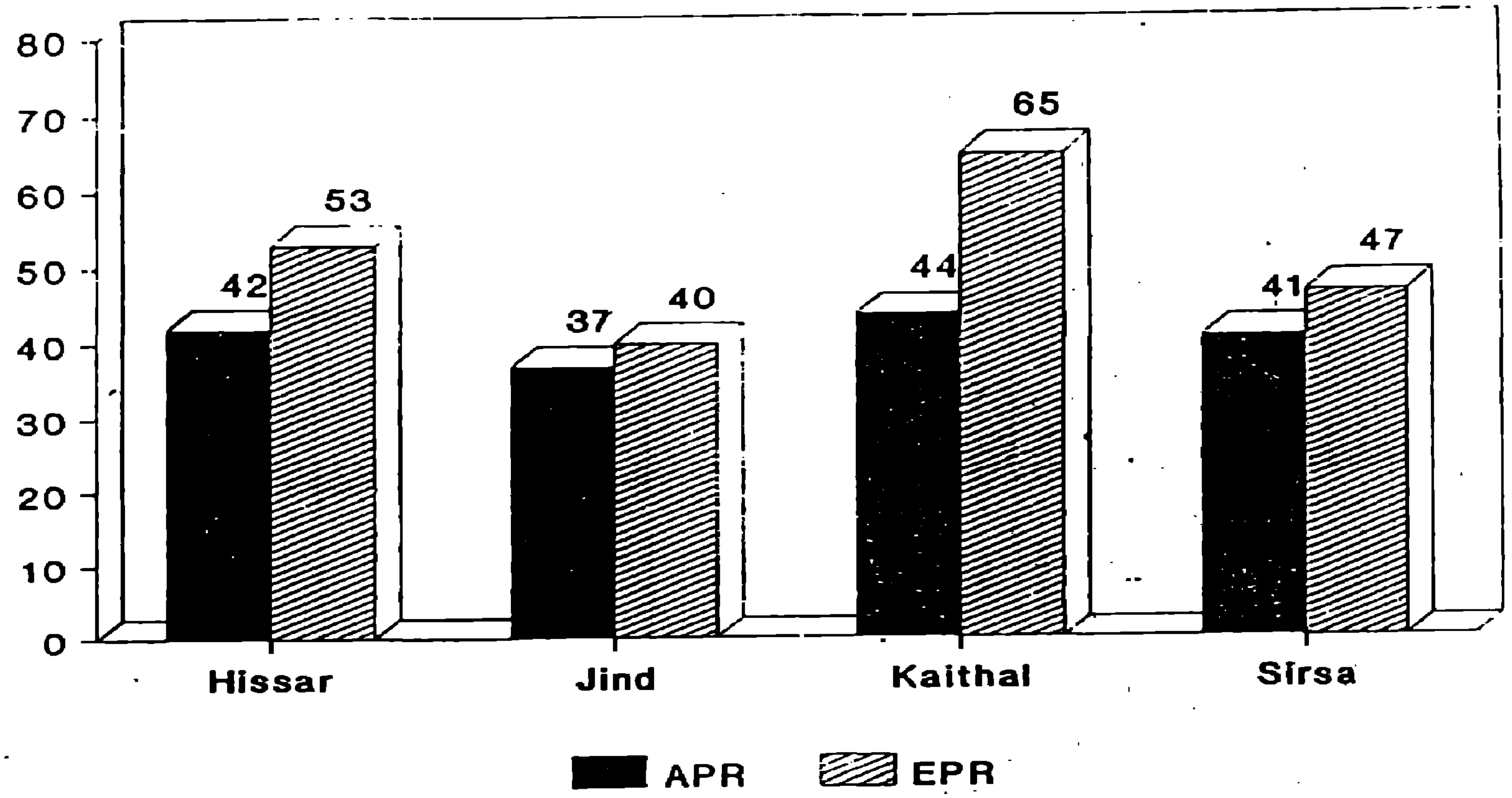


Fig. 47

Table 3.6.16 shows the average number of teachers during the last three years. The number has decreased (1993-94) in the district of Kaithal. In the other three districts it has remained almost the same. The participation of female teachers is found relatively higher in the district of Hissar and Sirsa, whereas in Jind and Kaithal there are more male teachers.

Table 3.6.16: Average Number of Teachers

		Hissar	Jind	Kaithal	Sirsa
1991-92	**Male**	**01.45**	03.00	01.57	01.22
	Female	**02.02**	02.14	01.62	02.45
	Total	03.47	5.14	03.19	03.68
1992-93	Male	01.45	02.91	01.42	01.02
	Female	**02.37**	02.17	01.85	02.45
	Total	**03.82**	**05.08**	03.27	03.48
1993-94	**Male**	**01.20**	**03.08**	01.54	01.22
	Female	**02.35**	**02.80**	01.40	02.42
	Total	03.55	05.88	02.94	03.65

Table 3.6.17: Teacher Pupil Ratio

	HISAR	JIND	KAITHAL	SIRSA
Apparent Pupil Teacher Ratio (APR)	42	37	44	41
Effective Pupil Teacher Ratio (EPR)	53	40	65	47

The individual needs of each pupil need to be considered for effective schooling. This is largely dependent on the **number of pupils and** effective classroom management skills. The above Table 3.6.17 shows the analysis indicating a highest effective pupil teacher ratio in Kaithal. Similarly, the apparent pupil teacher ratio is also 44 in Kaithal.

Basic Amenities

For normal teaching-learning process, some basic amenities are required. These amenities have a direct and an indirect bearing on education of children.

Table 3.6.18 shows that still about 15-30 per cent schools are not having safe drinking water facility. The schools of the district Sirsa (25.7%) are most hit by this problem. The situation in other districts is also not satisfactory where quite a large number of schools report absence of those amenities.

Table 3.6.18: Basic Amenities Available

	Hissar	Jind	Kaithal	Sirsa
Safe Drinking Water	85.00	80.00	62.90	74.30
Toilet Facilities	42.50	62.90	54.30	68.60
Separate Toilet Facilities for Girls	37.50	51.40	37.10	57.10
Electric Connection for the Schools	20.00	40.00	31.40	48.60

In case of toilet facilities for students and separately for girls, the situation was not an encouraging one as about 50 per cent of the schools in the four districts reported absence of this facility. Above 40 per cent reported absence of separate toilets for girls in Hissar followed by Kaithal, Jind and Sirsa.

Haryana was among the first few states where 100 per cent electrification of villages was reported about 10 years back. However, Table 3.6.18 tells a different story. About 60-80 of schools were reported to be without electric connections. In this regard, schools of Hissar (80%) were the most backward followed by Kaithal (68.6%), Jind (60%) and Sirsa (51.4).

So it clearly stands out that there is an urgent need to strengthen these schools with these three basic amenities.

SCHOOL INFRASTRUCTURE

Of the 145 sampled schools in the four districts, there was districtwise variation with regard to infrastructural facilities. In the district of Kaithal most of the schools (91.4%) had their own building followed by Sirsa (88.6%), Jind (82.9%) and Hissar (82.5%). The schools running in rented building wre found to be the maximum in Hissar.

Table 3.6.19: School Buildings

	Hissar	Jind	Kaithal	Sirsa
Own Building	33 (85.50	29 (82.90	32 (91.40	31 (88.60
Rented Building	02 (05.00	01 (02.8	01 (02.8	01 (02.88
Rent Free Building	05 (12.50	05 (14.20	02 (05.70	03 (08.60

The participation and linkage of community with the prevailing educational practices in these district could be seen in relation to extent of cooperation provided by the community in maintaining and provision for accommodation (building). A comparative picture of four districts shows (See Table 3.6.19) that about 10-12 per cent of the schools are running in the buildings provided by community in each district. In this regard Jind (14.2%) tops the list followed by Hissar (12.5%), Sirsa (8.6%) and Kaithal (5.7%).

Classroom

The number of classrooms in selected schools of each district ranges from 1 to 9. The percentage of schools with only one classroom was found highest in the district of Sirsa (20 per cent). In almost all the districts except Kaithal 10-15 per cent of the schools were with 5 or more than 5 classrooms. In Kaithal such schools are about 18 per cent. The schools with 3 and 4 classrooms in Hissar were about 37 per cent, while in other three districts they were around 15 percent.

All the sampled schools of four districts desired to construct more classrooms to meet the increasing demand for more space on the part of students and teachers. The district of Kaithal tops the list in this regard where 32 out of 35 schools felt the need for more classrooms. However, a few schools were satisfied with the present number of classrooms. But most of the schools from these districts desired to have upto 50 per cent more classrooms to meet the load of students. (Table 3.6.20).

Table 3.6.20: Percentage of Schools According to Number of Classrooms

No. of Class Rooms	Hissar	Jind	Kaithal	Sirsa
Zero	12(30.00)	09(25.70)	03(08.60)	10(28.60)
One	00(00.00)	06(17.10)	05(14.30)	07(20.00)
Two	09(22.50)	08(22.90)	11(31.40)	07(20.00)
Three	12(30.00)	05(14.30)	04(11.40)	04(11.40)
Four	03(07.50)	00(00.00)	02(05.70)	02(05.70)
Five	01(02.50)	04(11.40)	04(11.40)	03(08.60)
More than Five	03(07.50)	03(08.60)	06(17.10)	02(05.70)

NB: Figures in Parenthesis indicate percentages

Teaching Aids

Table 3.6.21 shows availability of teaching aids in schools in all the districts. Items, like maps, chart, blackboard,chalk and duster were available. But about 30-35 per cent schools from Sirsa and Jind reported non-availability of these items.

The teaching aids like primary science kit, mini tools kit, and mathematics kit supplied by NCERT were not available in almost 50 per cent of the schools in all the four districts except Kaithal.. In the district of Jind more than 80 per cent schools reported non-availability of these kits. However, availability of these items in Kaithal was found to be a little bit satisfactory. The Table clearly visualizes the need for increasing availability of all the basic essential teaching aids especially the kits supplied by NCERT.

Table 3.6.21: Availability of Teaching Aids in Schools (Percentage)

	Hissar	Jind	Kaithal	Sirsa
Maps	90.00	71.40	94.30	65.70
Globe	82.50	62.90	68.60	71.40
Charts	82.50	65.70	91.40	80.00
Primary Science Kit (NCERT)	52.50	28.60	65.70	51.70
Mini Tool Kit (NCERT)	35.00	17.10	54.30	37.10
Mathematic Kit (NCERT)	42.50	14.30	68.60	42.90
Black Board	92.50	94.30	88.60	91.40
Chalk & Duster	92.50	91.40	94.30	97.10

Games or Play Equipment

To run extra curricular activities in schools it is necessary to have some good equipment available within the schools.

Table below reveals that the situation with regard to availability of games/musical instrument/play material was not satisfactory in almost 50 per cent of the schools in all the four districts. Since development of gross and fine motor skills need to be developed during this period the availability of toys and games equipment is necessary.

Districtwise analysis of the situation is worse in the district of Jind where 37 per cent schools reported availability of play materials. In the district of Hissar, Jind and Kaithal the difference in non-availability of these items is marginal. However, in the district of Hissar 42.5 per cent of the schools only had the musical instrument necessary to organise activities in the schools.

Table 3.6.22: Availability of Facilities for Play and Games

Facilities	Hissar	Jind	Kaithal	Sirsa
Play Material Toys	62.50	37.10	62.90	60.00
Game Equipments	57.50	54.30	54.30	54.30
Musical Instruments	42.50	51.40	57.10	57.10

Books/Reading Material

Books and other reading materials play an important part in molding the personality of children in accordance to his/her ability and society needs. They enlighten them and make them aware of many scientific, social and economic developments taking place in the modern times. But if we see their availability in the sampled schools of the four districts, a not too encouraging picture emerges. About 20-40 per cent schools reported non-availability of reference books/ dictionaries and encyclopedias. There were 20 per cent, 43 per cent, 31.4 per cent and 34.3 per cent schools in Hissar, Jind, Kaithal and Sirsa respectively reported non-availability of such reading material.

The situation is poorer in case of availability of children's books magazines/journals/ newspapers. The Table 3.6.23 clearly focuses on availability of these essential amenities in the four sampled districts of Haryana. It seems that the district of Jind was the most backward in availability of these items and in the district Hissar the situation is somewhat satisfactory as compared to other three districts.

Table 3.6.23: Percentage of Books/Reading Material

Items	Hissar	Jind	Kaithal	Sirsa
Reference Books Dictioneries Encyclopedias	80.00	57.10	68.60	65.70
Children's Books	90.00	68.60	88.60	68.60
Magazines/Journals News Papers	37.50	31.40	34.30	42.90

Health Facilities

It is said that health is wealth. For normal physical, emotional, social, and cognitive development it is essential that the student should be free from any type of disease and disability. The Table 3.6.24 shows that of the four districts in about 30-40 per cent schools no medical check-up is done annually. The situation is the worst in Sirsa where 40 per cent reported nonmedical check-ups. The situation is similar in Hissar, Jind and Kaithal where 27.5, 34.3 and 22.9 per cent respectively reported the same with regard to immunization facility existing or access to it. It is revealed that 37 to 70 per cent of schools reported availability of this facility. Schools in Hissar (65%) reported the highest percentage of non-availability followed by Jind (62.9%), Kaithal (54.3) and Sirsa (42.9%).

For minor accidents or diseases it is necessary to have first-aid-kit in the school. But the picture of schools in these four districts is highly dismal. In the district of Kaithal, 91.4 per cent of schools reported non-availability of first aid kit followed by Sirsa (82.9%), Hissar (77.5%) and Jind (65.7%).

Table 3.6.24: Availability of Health Facilities

All	Hisar	Jind	Kaithal	Sirsa
Annual Medical Checkup	72.50	67.10	77.10	60.00
Immunization Facility	35.00	37.10	45.70	57.10
First Aid Kit	22.50	34.3	08.60	17.10

Essential Facilities

The facilities like chairs and tables for the teachers, water pitcher, table, glasses, dustbin and school bell were available with about 80 per cent of school studied in four districts. However, the availability varies marginally from district to district.

Table 3.6.25: Availability of Essential Facilities

All	Hissar	Jind	Kaithal	Sirsa
Chair for Teacher	92.50	94.30	94.30	85.70
Tables for Teacher	92.50	98.60	91.40	71.40
Water pitcher and ladly Glass	90.00	85.70	71.40	88.60
Dustbin	92.50	77.10	74.30	88.60
School Bell	77.50	74.30	68.60	71.40
Pin-up Board/ Notice Board	22.50	17.10	22.90	34.30

Playground

Table 3.6.26 shows that about 50 to 75 per cent of schools of four districts are without playground facilities. The schools in the districts of Jind and Kaithal without any playground facility were 74.3 per cent and 71.4 per cent respectively. The districts of Hissar and Sirsa were found to be slightly better in the availability of playground facility. The schools having playground within the school premises varies from district to district. The highest percentage is found in Sirsa (71.4%) followed by Kaithal (68.6%).

Table 3.6.26: Playground Facility Available

	Hissar	Jind	Kaithal	Sirsa
Playground facility(exclusive for the school)	45.00	25.70	28.60	37.10
Playground within the school(premise)	57.50	54.30	68.60	71.40

More than 30 per cent of schools reported no contribution from community. The school records reveal that the rest of the schools received incentives within the range of 1-1000 rupees. A few were also receiving about Rs.2000.

Table 3.6.27: Community Contribution to Schools

Incentives	Hissar	Jind	Kaithal	Sirsa
No Contribution	32.50	42.90	42.90	34.30
1-500	25.00	22.80	25.70	40.01
501-1000	05.00	22.80	08.50	02.90
1001-1500	05.00	00.00	00.00	02.90
1501-2000	17.50	02.90	11.40	02.90
Above 2000	15.00	08.60	11.40	17.10

In order to function properly a school alongwith the required infrastructure needs to be properly equipped with the required teachers strength. The vacancy position analysis shows that with the exception of Jind, about one-fourth schools in the three districts have at least one vacancy. Almost half of the schools in all the districts have no vacancies.

Table 3.6.28: Vacant Post of Teachers

Vacant Post	Hissar	Jind	Kaithal	Sirsa
0	47.05	71.40	40.00	40.00
1	22.50	05.70	25.70	28.60
2	12.50	02.90	11.40	05.70
3	07.50	08.60	14.30	11.40
Above 3	10.00	11.50	08.60	11.40

Seventeen to thirty per cent schools require one additional teacher to carry out their work satisfactorily. From half to almost three fourth schools state that they do not require any additional teacher.

Table 3.6.29: Additional Teachers Required

Vacant Post	Hissar	Jind	Kaithal	Sirsa
0	50.00	71.40	40.00	65.70
1	30.00	17.10	25.70	17.10
2	07.50	08.60	08.60	14.30
3	05.00	02.90	08.60	10.00
Above 3	07.50	00.00	17.20	02.90

Table 3.6.30 shows that in language the percentage of schools that could not achieve MLL range from a minimum of 17.1 per cent in Kaithal to a maximum of 40 per cent and in mathematics the performance was much lower as more than 60 per cent of schools in all districts could not score above 40 per cent marks.

Table 3.6.30: Average Scores of Schools in Language and Mathematics

	Hissar	Jind	Kaithal	Sirsa
Language				
No of School < 40%	13 (37 50)	8 (22.80)	6 (17.10)	14 (40 00)
Lowest Mean	14 70	20.50	29.10	23.00
Highest Mean	59 20	49.40	64.80	48.80
Mathematics				
No of School < 40%	28 (70 00)	22 (62 80)	23 (65 70)	28 (80 00)
Lowest Mean	08 80	11 70)	09 20	9 10
Highest Mean	27 80	23 80	23.60	24 40

CHAPTER IV

IMPLICATIONS FOR DPEP INTERVENTIONS

The present study conducted in Haryana was based on empirical evidence generated from the four DPEP districts, namely Hissar, Jind, Kaithal and Sirsa. The analysis and interpretation of data has brought out several important findings which have implications for designing intervention strategies. The most crucial part is the implementation of these strategies.

The sample consisted of 145 schools, 548 teachers, 2462 Class II students and 2516 Class V students from 9 blocks and 12 urban areas of the four DPEP districts. District specific patterns have emerged from the study. Conclusions made from the studies have implications for these districts only. It may have some problems if generalisations are done for the whole state. In this section the intervention strategies have been presented briefly under

(a) *Teaching and Learning Process in the Classroom,*

(b) *Teacher and Teacher Development*

(c) *Head Teacher and Supervision*

(d) *School Facilities and School Management.*

Since the implementation of intervention strategies is a result of efforts from all involved in the teaching learning process, repetition of recommendations under various heads is inevitable.

(a) Teaching and Learning Process in the Classroom

Achievement

Class V

The analysis of the Achievement Tests in Language and Mathematics revealed a low learning achievement in language and mathematics in all the districts. It is the lowest in Sirsa. Considerable number of students in Class V were at zero level and many more could not achieve even minimum levels of learning. The sampled students performed better on word meaning than on reading comprehension test. Further children at the end of the primary cycle faced difficulty in answering inference items and items relating to getting at the central idea or writing the title. Not even 40 per cent children could correctly attempt items involving addition and subtraction in the same item, multiplication involving zero as one number, fractions and place value and items involving application of mathematical concept to problems relating to life. All children should be helped to achieve mastery level in these basic tools of learning which serve as foundation for subsequent learning achievement. The intervention strategies should be addressed for improving teaching reading and comprehending and basic skills in mathematics in early grades.

Class II

Letter and word reading are basic skills which require complete mastery for developing subsequent reading skills. In the case of letter reading the situation is alarming. About one third Class II students could not read even a single letter. The situation was more disturbing in word reading test, where the achievement was lower than letter reading. Girls scored significantly lower than boys. Surprisingly, 10-15 per cent of students were not able to read even a single word. Words beginning with matra and beginning and ending with matra posed specific difficulty for children. This may be attributed to rote memorisation of words without mastering the reading of letters and developing sufficient discrimination between letters and matras. It requires lots of additional practice with new words and their analysis into component letters and matras.

The number recognition and simple addition and subtraction are basic numeracy skills to be mastered by all students for subsequent levels. The students scored lower on numeracy than on the literacy test. Nearly one tenth of students could not do even a single item of number recognition correctly. Again, one fourth students could not solve a single addition and subtraction item correctly. Problems were encountered in addition of zero, subtraction of same number from itself and concept of zero. The low achievement in Class V seems to be the result of the low levels achieved in Class II.

Majority of dropouts were girls and children belonging to SC. The literacy and numeracy level of dropout students was quite low. The percentage of dropout students with zero in numeracy is less than literacy. This may be due to more functional use of numeracy skills in daily life. Girls achievement was lower than that of boys in mathematics. In rural areas achievement levels were lower. Intervention strategies should address these needs.

Most of the dropouts were repeaters. Even Class V students had a good number of repeaters. There were also students who repeated classes twice and thrice. This is also an indicative of poor quality of teaching which is to be addressed.

Special drives to improve girl child's achievement and inclusion of teaching basic concepts should form part of inservice training of teachers. The existing facilities of inservice education should be upgraded in these districts and the resources provided by the MHRD for DIETs and SCERT of Haryana should be utilised. The walls of the school should have lots of black space for practice in writing for children. Further classrooms should be made more attractice and display boards fixed on the walls of the classroom to enable students to display their drawings, writings and other work.

The teachers considered admission throughout the year, non- detention policy and lack of parental support as causes of low achievement. Since the Class I tests were given at the end of Class II and by that time numeracy and literacy skills should have been mastered, the admission throughout the year does not seem to be a relevant reason. The implementation of non-detention policy is faulty and does not realise the objectives, for which it is used. It is intended for smooth transition from home to school and adjusting pace of learning. Unfortunately however, it has become mostly a policy for promoting non learning students. Other significant parameters which emerge from the analysis are very low availability of preschool experience (0.4% in Kaithal), and poor availability of reading material, other than textbooks. Overage due to late enrolment and repetition, high illiteracy level of parents and reports of children facing difficulty in understanding teachers language affect the teaching-learning process. The intervention strategies need to address these aspects.

Making child-to-child help effective can be developed as a strategy to improve learning in schools and at home. In fact child-to-parent approach could also be used to harness support for learning environment at home. Active involvement of children in learning, providing opportunities for reading aloud, silent reading and dictation along with self correction and continuous evaluation with proper feedback will help immensely. Training both inservice and preservice needs to focus, on use of teaching aids, alternative learning materials and removing learning difficulties of students including meeting individual needs. The active involvement of students in teaching may improve their learning. The activity method, learning by doing, child centred approach, etc. need to be practiced by the teachers. Textbooks and curriculum based on minimum levels of learning should be designed. An improvement of communication and presentation skills of teachers are also important areas to be covered during inservice training. The textbooks should contain specific instructions for teachers and they should be provided training in the effective use of textbooks. Further, students should be guided to use the textbooks in school and at home.

(b) Teacher and Teacher Development

Teacher development is a necessary factor for improvement of achievement levels of children. Among the 548 teachers interviewed majority of teachers had passed matriculation or higher secondary and almost all were trained. However, only five per cent teaches were pursuing studies for university degree and higher academic courses. The teachers' knowledge in mathematics and language needs to be enriched. The ways for building motivation for continuing education needs to be addressed while working out implications for intervention.

More than half the teachers were females in the district of Jind and Kaithal, but their representation was lower in Hisar and Sirsa. The representation of rural urban teachers was close to the population proportion; but representation of teachers belonging to SC and OBC was below population proportion. More than half of the male teachers were 45 years and above in age. This indicates that female teachers have joined the teaching profession only recently. The implication is to prepare more female, SC and OBC teachers to improve availability for recruitment.

More than half of the teachers were in the school due to compulsory transfer or personal adjustments, which results in low level of motivation and job satisfaction. Irregular attendance by teachers was comparatively low except in Sirsa. The transfer and posting policy needs review and rationalisation to reduce dissatisfaction among teachers.

The percentage of teachers, who have not undergone inservice training, ranged from 20 to 33 per cent. However, low achievement despite inservice training indicates its ineffectiveness. The preferred choice of the content to be covered in inservice training was National Education Policy, multigrade teaching, teaching learning approaches and presenting and communicating subject matter. The study revealed that teachers predominantly using textbooks to explain and asking children to read. Low reading scores do not reflect effective reading by children. Most teaching aids were provided by the school and children were not involved in making teaching-learning aids. The areas of curriculum in which teachers need special competency need to be further identified along with pedagogical competency. The process of training needs to be reviewed. Steps should be taken to incorporate necessary changes in the districts. Teacher based training programmes need to be designed. Some children in the border districts like Sirsa speak different mother tongue at home. The teachers from different mother tongue might be using a mixed language in the classroom. Along with this the communication skills of teachers might leave much to be desired. The net result is uneven understanding of teacher communication in the classroom affecting teaching learning process adversely. While designing training for teachers need to be addressed. Further managemenr of multigrade teaching local need based procurement of materials would help immensely.

In order to ensure return from investments in DPEP teacher empowerment, teacher based and school based inservice training along with greater interaction and collaboration among teachers in schools needs to be built. Networking with other schools and ensuring access to teacher guides and class textbooks also needs to be the focus of intervention. Efforts should be geared for helping teachers plan action research programmes to design improvements in their schools. These teachers should then be allowed to continue in their schools for the required period and their transfer stopped. This is bound to promote innovation and experimentation at school level.

Inservice training of teachers has to be made need based and recurrent. The programmes should be geared for multigrade teaching, individualised instruction and remedial teaching. Taking into account individual needs of each district perspective plans need to be designed for both inservice and preservice training.

(c) Head Teacher and Supervision

The teachers seem to suffer from academic isolation. About half of the teachers reported no classroom supervision by head teacher and another 80-90 per cent by Block Education Officer. The responses of the head teachers and teachers are contradictory. The head teachers considered student motivation to be the most important factor for school performance. It was followed by attitude and commitment of parents and teachers. The head considered himself or herself to be least important factor. This indicates a tendency to consider others responsible for low performance. It is a pointer towards lack of conducive climate in schools for learning.

The intervention strategies are required to help head teachers to provide to teachers the necessary academic guidance. They need to demonstrate good teaching practices, arrange staff meetings for improving performance. Leadership training and training in maintenance of school records also needs to be given. Special efforts for linking community and seeking their involvement in school management and building links with school cluster, heads and BEO are also necessary. Ideas related to decentralised supervision and support with peer coaching need to be inculcated. Networking of primary schools laterally in a cluster and lead schools vertically would prove to be also an effective strategy.

(d) School Facilities and School Management

Over 80 per cent of the schools had their own building. Less than 60 per cent primary schools had a primary school within the range of two kilometres in all districts except in Jind. Although distances were crudely estimated by teachers, the indication is that some schools in Dhanis and small villages might be at a distance of more than two kilometres. It becomes one of the factors for discontinuance of studies by girls. Construction of new schools according to need is thus required.

In addition, many schools in the four districts require 1 - 5 classrooms. About a quarter of schools require safe drinking water, while about a half of these required toilet facilities. Separate toilet facilities for girls are needed in about two third of schools. Electric connections were also needed in a large number of schools. About one tenth of schools required chair, tables and pitcher for water. Further play ground facilities and play material where required in about half of the schools. Though more than four fifth of the schools were covered by school health scheme or annual medical check up, a large majority did not have a First Aid Kit.

Microplanning for extension or construction of new buildings, toilets, drinking water, electric connections, supply of teaching aids and library books, etc. for additional reading are required for good results from intervention.

The salient implications that emerge can be summarised as follows:

Focus on Mastery of MLL's

Focus on reading and mathematics teaching

School based continuous training of teachers

Involvement of commuity in school management for

(a) student regular attendance,
(b) teacher regular attendance

Teacher based and school based in-service training with greater interaction and collaboration among teachers.

Decentralised supervision and cluster based support for school improvement

Continuous monitoring of student achievement

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